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THE ADDRESS IN SURGERY.

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A SKETCH OF THE PROGRESS OF SURGERY.

FROM the broad field of surgery there are many lines of inquiry which might interest its devotees if properly followed. But to treat of any one of them implies special study of the new developments that now abound in the great advances in the arts and the sciences whose discoveries it employs. On a former occasion your reader occupied the same relation to you that he does at this moment. He then prepared himself for the occasion by a series of experiments *in corpore vile*, to illustrate the subject of blood infusion. He believes he had the good fortune to add a thought to knowledge on this topic. It seemed to him that a general view of the relation of surgery, and the surgeon, to the community in which he lives and has lived might be of sufficient interest to justify the spending an hour in its review. This must revive well-known stories, and allude to present movements familiar to all; but they contain triumphs which always stir the heart of the true surgeon. Pope in his mellifluous couplet, which has pleasantly rung in the ears of every physician from his youth up, has interpreted the views of Homer of three thousand years ago, when he sang that,

"A wise physician, skilled our wounds to heal,
Is more than armies to the public weal."

Then, as now, the surgeon was most prominently connected in the public mind with the treatment of wounds of accidents, or those of his own making.

Recurring to the subject of wounds, we can, perhaps, at no one point get a better illustration of the movement of discovery than in the changes with reference to their management, and especially of those that the surgeon inflicts in performing the amputation of a limb. It would be idle, in the few minutes at my disposal, to follow accurately even this one line. The attempts at primary union have seldom been other than partial, until the advent of the modern antiseptic methods. In the early part of this century, experiments upon the encysting of ligatures for closing the arteries were tried and abandoned. The movement from the open wound, of necessity, to the closed one antiseptically treated with soluble ligatures and sutures has been long and slow. We had almost come to the definite conclusion to make the open wound as the final judgment of the profession. Hippocrates avoided amputation except in cases of gangrene. In his day it was full of terror. Indeed, there could not be said to be any amputation as we understand the

process. Limbs that were crushed or injured by compound fracture were allowed to get well or to mortify. When gangrenous, after the red line was formed, it was made at the border that Nature had decided on as the place of separation between the dead and the living. Such delays in the treatment of severe injuries, with our knowledge, would be simply criminal. But when gangrene has occurred and we wait as we must, except in certain rare conditions generally understood, I am in accord with the custom of Hippocrates. This places me in contrast with a practice almost universal. But, singular as it may seem, an antiseptic dressing will complete the measure of safety incident to the amputation through the dead part.

Reasons for this belief are easily stated, and, of course, are not those founded on the fear of amputation through the living parts as a general measure. But when the red line has formed, Nature has already made the amputation. Following an irregular line, which is lowest down in the integuments and bone, the separation has been made between the dead and the living tissue. The danger arises from the retention of poisonous fluids in contact with tissues now full of vitality. An operation of necessity can be made, closely following the line of demarcation, and it will be found that the endosteum retains its vascularity nearly, if not quite, as far down as the integument does. These are the two factors of an amputation indispensable to its success. The muscles, and especially the fascia and aponeuroses, as well as the periosteum, are apt to die. Deep recesses following the connective tissue will be filled with pus and septic fluids. The amputation may be made as described, with far better hope of success, than higher up through the living tissues. The special dangers of amputation through them are avoided. There are no vessels to tie, there is no fresh absorbing surface to be poisoned by its own secretion, there is no danger from hemorrhage, and more than all, in the enfeebled condition of the patient, there is no shock. The deep recesses are now exposed and can be cleansed. Absorbent cotton, moistened with a solution of mercuric chloride pushed into the open spaces, at once attracts, by capillary attraction, all the fluids. When the succeeding dressing is undertaken, it will be found that every part has the appearance, and, indeed, the reality of having been washed clean. The irregular surface is, however, a granulating one, and for this reason alone has become one that is essentially protected from the dangers of sepsis as soon as a free escape of the fluids can be effected. The periosteum, if destroyed, may result in necrosis of the outer shell of the bone. But the endosteum will maintain it in its integrity sufficient for the length of the stump. The wound being necessarily an open one, closes slowly.

It will be seen that the observation which I urge upon your attention is a return to the ancient method, with two thoughts added to it, which, in my judgment, should change our practice in these cases. They are, as every

surgeon knows, fraught with great danger when the amputation is made above, in the living tissue, for the shock of amputation in the enfeebled state is frequently fatal. The custom of the ancients was to pick away the dead part, and divide the bone high up. They were anxious to disarticulate, if the line of separation had gone to a joint. One stands aghast at the shapes their stumps must have assumed. In recommending the open wound, in these cases, I only do so at points where a proper stump can be made. Take, as an illustration, gangrene commencing in the foot, and stopping on the leg four or five inches below the knee. According to our custom, the amputation must be made through the thigh. But the danger of such an amputation is vastly more than by the Hippocratic method, at the red line, and the lower stump is far better. The choice, in my opinion, should be made at the red line, if possible.

The advent of the gunshot wound occurred at a time when the practice of surgery was at a low point; and the effect of the "villanous gunpowder" was regarded with just grounds of terror. The terrible results were ascribed to poison. Both the lead and the gunpowder were poison. How could such fatality occur unless from poison? Poison wounds should be treated with the hot cauterizing iron, or boiling oil, to destroy the infected surface. The bullet must be extracted, if it be possible; its poisonous character could scarcely be borne by the constitution. The surgeon with such views would be apt to complete the work of the soldier. But time reforms medical as well as other opinions. If easily extracted, all foreign bodies should be removed, even with the present views of the innocuous character of the bullet. This has always been accepted, and expectation has been the practice for a long time. But now we have antiseptics of the track and careful covering of the wound to guard against microbial invasion. How far this may be carried is yet unknown, but great advance has already been gained. It is, however, of recent date that the greatest steps have been taken in the management of this special form of wound. Among the most notable are those announced from this platform. The facts are all known to you. The great cavities of the body have, heretofore, been deemed unapproachable. It was believed that the surgeon, if he undertook their exploration, would render certain what was almost sure to happen. In gunshot wounds of the abdomen there might, perhaps, be one life saved, while ten were lost. Why should this meagre hope be denied?

But all this is changed. I do not report, but only allude to the marvels that are detailed by Drs. Parkes and Senn, marvels that we could only know by the use of vivisection, which, fortunately, has not yet been submerged under a sea of maudlin sentimentality. Here, again, we have the triumph of cleanliness. A gunshot wound of the intestine will inevitably result in the expulsion of some of the contents of the bowels, the vermicular motions of the intestines will surely secure this result, even if, after a while, these motions are arrested, in obedience to the law of inflammation. The cases of recovery were, probably, those where a fortunate apposition of the wound near the abdominal walls circumscribed the area of pollution and nature's active efforts at repair completed the line of circumvallation. The case of the insane woman in Utica Asylum, who punctured the abdomen and drew out a piece of the small intestine, fourteen

inches long, and cutting it off with a pair of scissors, threw it on the floor, is widely known. The physician in attendance knew of nothing but expectation in such an emergency. He drew the edges of the abdominal wound together, and waited the event. No remarkable symptoms supervened. The recovery was complete. Many years after, an autopsy revealed the fact that the edges of the intestinal wound had been fastened to the abdominal wall. But such results are too rare to be guides of conduct. The new methods are already accredited with improvement, and as the courage and better diagnosis of the surgeon improve, we shall inevitably place the treatment of these wounds by laparotomy upon a sure foundation.

Every surgeon has seen cases of strangulated hernia where gangrene has supervened, and will bear testimony to the fatal character of the injury. Now, for the relief of this condition enterorrhaphy comes in to take its place as a recognized operation, with large increase in the saving of life. Again, cleanliness is the pivot upon which the whole movement turns. It seems incredible that the peculiar kind of filth that invades the peritoneum in gunshot wounds of the intestine, can be removed sufficiently to secure even such results as have been obtained. Antiseptics of proper strength over this immense surface are dangerous expedients. Are we to see a stream of distilled water, rendered properly saline, carried into and out of the peritoneal cavity long enough to insure cleanliness? Are we to irrigate the surface after inflammatory exudates have actually appeared? The possibilities seem large. That these exudates, when extensive, may accompany a fatal inflammation without the formation of the dangerous ptomaines of microbial creation, it seems to me to be manifest. In the experiments by Dr. Parkes on dogs, one fact is to be especially noted; the frequency of the existence of entozoa and their migration through the wound. It has been my fortune to witness two deaths from rupture of the intestine by external force, without a wound of the abdominal wall, not even a break in the parietal peritoneum. One was in a child of six years of age; the other in a man of forty. The child died in twenty-three hours, and the man in twenty-six. Autopsy revealed a fact exactly the same in each case. The fibrinous exudate of a character sufficiently firm to be lifted upon the handle of the scalpel had extended over the whole surface of the peritoneum, even to its remotest corner. It is a little odd also, that a single lumbricoid worm had crawled through the opening in both cases. The fibrinous material had probably acquired its firmness many hours before death. It is hardly credible that much pathological change could have occurred during the latter hours of life.

Just fifty-one years ago, during my student days, I had the pleasure of an invitation from Prof. Mütter to witness the first operation on the tendo Achillis in Philadelphia, and, as I believe, on this continent. It was his second operation. The antecedent one was upon the hamstrings. Still a young surgeon, he was especially patronized by Dr. John Rhea Barton, who, upon the then recent death of Dr. Physick, was by common consent recognized as the surgical chief of Philadelphia. Dr. Barton protested vehemently against the operation and refused to witness it, being unwilling to give his countenance to anything that was so dangerous. It would certainly blight Mütter's prospects in life. Moreover, the

interests of the patient should stand first and he could not be a party to anything so contrary to good surgery. The great fact of the immunity from suppuration when subcutaneous incision is made, had not yet impressed itself upon the surgical mind. The vast value of direct repair had acquired its recognition under the guidance of John Hunter, but the value of the subcutaneous cut was not appreciated. This marks one of the most magnificent of all surgical movements. The rationale was to be explained to-day. Antisepsis is the legitimate descendant of the subcutaneous cut. The tenotome would almost surely be cleansed as it passed through the skin, and the minute wound would be washed by the few drops of extruded blood. This was clearly our antisepsis. Was not Dr. Barton justified by his experience? With our knowledge his conclusions reached the depth of absurdity. But had he not seen tendons sloughing when exposed to the air? Had not cases enough of accidental incision of the tendo Achillis been reported to prove that if the life, always in danger, was preserved, the limb was likely to be useless from the loss of its great tendon? The surgical world woke to a great fact, and strabismus, torticollis, and all contracted tendons came under the surgeon's knife, until it became almost a craze, when Guerin, for the relief of lateral curvature of the spine, cut every spinal muscle and tendon that he could define, until the chain of bones could be moved like a serpent's back.

At the meeting of the New York State Medical Association last September I led the discussion upon the proper method of treating compound dislocation of the ankle-joint. I found the opinions of surgeons on this point very indefinite, with a strong, even an uncompromising judgment in favor of amputation; notably by Prof. Gross, who would make rare exceptions to this plan. Others advised reduction and a few relied on resection, some of the tibia and fibula with removal of the ends of both bones with their malleoli, while others removed the surface of the astragalus also. Even the most modern writers left the whole subject in a vague way to the judgment of the practitioner. These authors were quoted to show their various opinions, but it would be out of place in this paper. For a long time I had been convinced of the great wrong inflicted by these teachings, which were founded on the statistics of hospitals in large cities before the day of antiseptic surgery. Such advice was even then not applicable to the condition of life in the country and smaller towns, where purer air and better constitutions existed together. I had used resection with good results in three cases, and had seen two cases, in consultation, which had been simply reduced by the surgeon in attendance. The latter made good recovery after a considerable constitutional disturbance, but by ankylosis. But before writing my paper, I had the good fortune to see a case that had been treated by a young friend (Dr. P. G. Udell), which seemed to me an almost ideal result. The foot, movable through a little more than half its normal extent, and free from pain in walking, was enabled to execute its function by the formation of a flail-joint after the resection of an inch and a half of the tibia and fibula. The novelty of the method consisted in leaving the two malleoli attached to the astragalus and bringing their fractured extremities in contact with the resected end of the bone. Granulation was the result, of course. Drainage and

carbolic acid solution were employed to secure antiseptic results.

Six months reflection and experience have induced a change in my opinion as to resection of the malleoli in these cases. I would now, in nearly all, reduce and rely on cleanliness and antisepsis. There are cases, of course, where the crush is so severe that there can be no doubt. But when the rupture is great, better opportunities are given for the inspection of the surfaces, than when the opening is small. The resection may be secondary and the amputation tertiary.

The microbial discoveries of Pasteur and Koch and their disciples have placed all of our therapeutics on a new basis. The subject is trite, we hear of little else. No one knows when a real discovery is made how far it will reach. It always seems to run like a thread through the woof of all knowledge. How can we measure the scope of a piece of glass ground to a lens? The spectroscope was a mere philosophic toy at first; what now?—the analyst of the sun as well as of the blood. No one can now measure the possible triumphs of surgery. That which was excellent yesterday must be abandoned to-day. I confess, after long years of practice, to a delight that has the glow of youthful enthusiasm when making a resection of the knee under the use of mercuric chloride, and closing up the wound with silk sutures and applying drainage tubes in each corner of the wound, and then covering the whole with absorbent cotton saturated with the same microbial enemy; to remove the whole at the end of two weeks with complete closure, every suture encysted and not a drop of pus. Of course, there was no fever, only physiological repair. Or even to witness, perhaps, a more difficult feat in a much more common condition, the neat apposition of the tissues of a hand lacerated by machinery, while a stream of the antiseptic solution flows over every part, and the retention of these tissues in their proper position is effected by sterilized catgut, the whole protected with absorbent cotton saturated with the solution. At the end of a fortnight the sutures have disappeared, the repair complete, without a drop of pus. Such are now the experiences of all of you, and need no enlargement of statement. The surgical atmosphere is now antiseptic. Lister must now take his place beside Jenner. For the time, he has added a word to the language, and we do not mean merely carbolic acid and the spray when we speak of Listerism. There is already a wide range of material to choose from.

It is, however, obvious that there is a constant tendency toward the employment of the mercuric chloride, notwithstanding the objection raised by Prof. Billroth and his preference for iodoform. Its accessibility, its inodorosity and enormous power as a germicide will easily account for this. The natural fear of its powerfully toxic effect has rendered us all cautious, but more knowledge of good methods is expanding its application.

Who has not dreaded the care of a compound fracture of the thigh? But now we have report by Professor MacEwen of 1000 cases of osteotomy and no bad results. Who a few years since could have accepted the statement, that the bone could be cut and crushed, the surface broken and driven into the texture of the bone above and below, and yet remain absolutely free from the danger of necrosis and ready for union? The operation is essentially subcutaneous. But Dr. Hahn, of Berlin, boldly incises the soft parts and exposes the surface of

the tibia under a stream of mercuric solution, regarding this operation as secure as the subcutaneous cut, and as the parts can be seen they are more susceptible of proper management. In all these cases merely the quiet necessary to physiological repair, with its antiseptic covering, comprises the after-treatment. Its simplicity and rapidity of result amaze one. Perhaps, however, the best illustration of the value of the treatment that renders wounds aseptic is to be found not in those that MacEwen has made, but in those that have resulted from accident, which we recognize as compound fractures. They are at the deepest part of the limb and present every form of wound in the same case known as incised, punctured, lacerated, and contused. They have always been the terror of the surgeon.

At present the record of the triumphs of antiseptic surgery flows from every hospital. It would be burdensome to quote much, but the tables of Volkmann give at a glance the whole history of the modern leap in surgery. It has always been the misfortune of old hospitals to be the places where the greatest mortality would ensue when a wound was to be treated. It is not necessary to enforce this statement by any large collection of statistics, but I cannot pass by the consideration of this subject without quoting the extraordinary tables of Volkmann. He has collected the facts from the hospitals of Germany and England, and found that the results in all were similar in a very remarkable degree. He found that of 885 compound fractures of the limbs, 339 deaths resulted, whether preserved or amputated, being 38½ per cent. This in civil life. In military hospitals the percentage was 23½. The difference may be easily accounted for by the fact that many of these were recently constructed and often extemporized, and also that the average age of the subject was during the firmest periods of life. The approximation in results in the various civil hospitals is shown very simply.

In Göttingen, the mortality was 38 per cent.

In Zurich " " " 38½ "

In Breslau " " " 40½ "

In Halle " " " 40½ "

In Bonn " " " 41½ "

Since the adoption of an antiseptic method, Volkmann makes report of 75 cases in 73 patients with compound fractures and many with injury of the joint, and not a single death. Of these there was the extraordinary number of 21, or 28 per cent. of all cases. 11 of these were treated conservatively, and there was but 1 that resulted in ankylosis. 1 was a shoulder-joint which was resected. The elbow-joint was opened six times, of which there were made one primary, and three secondary resections. 2 were treated conservatively. The knee-joint was opened four times and treated conservatively. The ankle was opened six times. 2 were treated by secondary resection. 1 by amputation. 3 were treated conservatively. The management was simple. In the first place protracted drenching with water, the removal of spiculæ and trimming sharp ends of bones, enlarging the wound always enough to allow exploration with the finger, and then causing it to gap by retractors, while the drenching was going on, not stopping until the last coagulum was disposed of; then completing the irrigation by a drench of carbolized water. After the proper replacement of parts the whole was covered with abundant layers of carbolized

gauze, and kept free from accumulation of fluids by drainage tubes. Most of the cases were seen a few hours after the injury. Five, however, were treated after a delay of forty-eight hours.

The great achievement of the day, however, is by common consent the marvellous growth of laparotomy. During my early career, the removal of an ovarian tumor, notwithstanding McDowell's success, was stigmatized as murder, which, indeed, it seemed very often to be. Dr. Atlee was fiercely denounced for his efforts to bring this operation into the ranks of legitimate surgery, which he lived to see fully established. But through what a valley of death have the wonderful results been obtained. It is now but fourteen years since Keith electrified the whole surgical world with the report of ten consecutive cases and only one death. Two years after Dr. Atlee remarked to me, after performing an operation of this kind, that if it should succeed it would be the tenth consecutive good result. It, however, failed. By what slow approach have we arrived at the present simplicity of operating. The manipulation is simple, but delicate beyond the necessities of ordinary surgery. How difficult to apply what we call experience. Surely every surgeon had seen enough of the danger of opening the peritoneum, to fear its terrible inflammation, which we have often seen run over the whole immense surface, even to its remotest recesses, beginning at a wounded point. Experience was ample. How could we dare to defy the results of such knowledge? But from the recognized fatality of the tumor, and the distressing condition under which life was maintained during the latter period of its existence, we should have known but little of the dangers to be avoided and how to combat them. How long a time it required to learn, that, after all, it was not peritonitis that we were chiefly to fear. We had to learn that the whole immense surface was but little else than the expansion of the lymphatic system, as the skin is of the nervous one. And when the blood mixed with the contents of the sac that had been left behind, excited first a secretion from the surface for their solution preparatory to their absorption according to the natural law for their disposal through the blood, we encountered on the autopsy the fearful red serum.

Too much was to be done. Even our therapeutics misled us. I still accept the correctness of the opium treatment in genuine non-traumatic peritonitis. We owe a great debt to Dr. Alonzo Clark for the careful development of its excellence in this condition. But our pathology was a mistaken one, and I cannot but think that the mortality is increased in the cases first mentioned by the use of opium. How much to unlearn and how hard in the face of our experience?

Who has not looked into the peritoneal cavity during an operation and hardly dared to touch it, preferring to leave some blood and sac contents, rather than touch the inflammable surface. But the death of Keith's eleventh case struck the keynote. The peritoneum must henceforth be clean. To our astonished gaze the membrane could be sponged, and washed, and dried, and then it quietly removed the small amount that the sponge could not absorb. From this time the death-rate diminished in the hands of every operator, and the note has become universal that the basis of all antiseptics is cleanliness. Even the exudation from peritonitis must be removed, according to Mr. Tait, who has for this condition washed

out the cavity with water that flowed from the city tap, and which, according to a friend with microscopical knowledge, contained "thirty-six different kinds of beasts." "You reject antiseptic medication," said I to Mr. Tait, who replied: "Yes, it is all rubbish; there is but one antiseptic that I know of." "Pray, what may that be?" "Soap and water." Again it is cleanliness. It would be idle to say that surgeons did not esteem cleanliness as going a long way before godliness in operations. But it was not of the precise and thorough kind that was demanded.

I will leave the statistics that Mr. Tait has given us, out of our consideration. They transcend those of all others who have undertaken to follow in his footsteps; so as to lead one to believe that there are some problems unexplained. The operation for the removal of an ovarian tumor is by common consent, in its various conditions, at times the most difficult one of execution that ever comes under the hands of the surgeon. At other times it is the type of simplicity. These circumstances give an opportunity for a wide difference in the results of operative procedure intended to be similar. There is a preponderating opinion that direct antidotes to the processes that seem to control the poisonous results of suppuration, increase the percentage of favorable termination in cases that have been operated upon. Their use marks another step in the treatment of wounds accompanied by exposure of the peritoneum. Mr. Tait's results are to be regarded as unique, and surgeons are not likely to omit proper antiseptic measures. We are still in the midst of change, but the splendid record of expert operators as we all know, has removed this operation from a mortality that seemed murderous to one that is less than any operation of a capital character. That this result has been obtained by constant attention to the action of natural law is too obvious to be denied.

Several years since I removed a uterus containing a fibroid weighing seventeen pounds. The cut extended nearly the whole length of the linea alba, before it could be drawn through it. The vessels were ligated on the sides, and then I carried out my device for managing the stump, and guarding the peritoneum from the presence of the dreaded foreign body in the shape of ligatures or sutures. A slight incision was made all around the huge mass about three inches from the vaginal junction. This was dissected down and all around to nearly the point above mentioned. The vessels were easily seized and the blood was readily prevented from passing into the cavity of the peritoneum by the cup-like form of the cut. Amputation was made about an inch from its junction with the vagina, and at this point it had, of course, become small. But little blood flowed from this last procedure, for the vessels had already been secured. After hemorrhage had ceased the edge of the cup-like pedicle was pocketed in the linea alba. Thus peritoneal surface was brought against its congeners. The intestines had fortunately been kept covered by the abdominal walls. Union of the wound in the linea alba was perfect. A drain down through the neck of the uterus seemed to me the most perfect of appliances. I fondly hoped that this was all that could be desired. But I had at this time no means of antiseptics. Now Péan, as reported by Dr. Senn, closes over the stump with catgut sutures, after having extirpated the mucus membrane of the neck, and brought the abraded surfaces together by a sort of auto-

plasty, and drops it back into the pelvis. As an operative procedure this seems to me to be final.

But the exposure of a joint to the atmosphere is far more apt to result in inflammation, with a tendency to suppuration, than the peritoneum. But now we follow the nests of bacilli into the joint with a sharp spoon, and filling all nooks with an antiseptic solution, close the capsule with the assurance of freedom from any active inflammation, especially of a suppurative form. This is surely one of the most extraordinary triumphs of antiseptics.

I must not omit, in this sketch, the important step in advance that was declared in the papers by Prof. Andrews and Dr. Watson, delivered before this Association last year, on the treatment of carious wounds by the use of a solution of hydrochloric acid 1 to 20. *A priori*, every one felt that such a strength of acid must be so irritating as not to be tolerated. But coming from such authority I at once adopted the method, and I desire to say, that I regard it, as one of the great advances in surgery, free from danger or even irritation, and replete with power. Moreover, we have at the same time an agent that removes the dead and does not injure the living bone, and is also a valuable antiseptic.

Neither must I fail to speak of one of the stages in the progress of research which is marked by the attempt to obtain sterilized air. As we all know, Lister's spray has occupied the largest place for this purpose, with a reputation much waning, and entirely abandoned as worse than useless in laparotomy. Let any one make the experiment of throwing the spray upon a plate of glass for a few minutes, and he will find, by the employment of a lens, that the rush of the vapor has drawn in and deposited upon the glass every floating particle in the atmosphere, thus concentrating the minute foreign bodies instead of dispersing them. Independent of the poisonous carbolic acid, rapidly absorbed from the large surface of the peritoneum, we would make a special deposit of foreign bodies, which, though minute, could be aught but useful. But long before Lister's time, a plan of enclosing the part to be operated on in an atmosphere of nitrogen was attempted. The difficulty of executing the procedure to a successful termination arrested the experimentation. Many years since I myself entertained the hope that benefit would accrue from the pouring of carbonic acid gas over the wound and into the cavity during a laparotomy, thus excluding the atmospheric air. But without sterilized hands and other necessary apparatus, the method was comparatively useless, and with the proper antiseptics became comparatively unnecessary.

We also find Dr. Prince sterilizing the atmosphere of the whole operating room, and a Boston hospital supplied by air from the roof, which, being carried to the basement, is passed over heated plates in winter, and thence distributed over the building. Burning sulphur is a common method of preparation with which all are familiar. Perhaps we may yet choose a room whose air shall be purified by its passage through sterilized cotton, or through tubes in imitation of Tyndall's glycerine box.

It is the glory of the time that really great men among us are not so marked by a wide separation from their colleagues, such as prevailed one hundred and fifty years ago. Then there was but one John Hunter, and he remained without peer, and with few followers. Meeting one of his contemporaries when he was carrying home

some pig's feet from market, for the purpose of anatomical inquiry, he was sneered at for busying himself about pig's pettitoes. To-day, the pettitoes on such a mission would be enclosed in a nimbus. We have now a Koch who leads, but there is a large following close at his heels. We have Atlee and Spencer Wells, but almost at once, their followers appear everywhere, and outstrip their teachers.

ADDRESS IN PUBLIC MEDICINE.

Delivered May 11, 1888.

BY H. P. WALCOTT, M.D.,

CHAIRMAN OF STATE BOARD OF HEALTH OF MASSACHUSETTS.

WHEN a committee of this body invited me to deliver the address which Dr. Cabell felt himself unable to undertake, I accepted the invitation with much hesitation, well aware that in attempting to fill the place which all had hoped to see occupied by the honored head of our first, unfortunately, perhaps, our last national health organization, I should fall far below your just expectation.

Mingled with this natural reluctance is also the knowledge that I have not the oratorical skill to repeat in any new or attractive manner those general statements as to the claims of hygiene and State preventive medicine upon the public and our profession which have been so often and so eloquently brought to your attention.

Neither am I quite willing to limit myself to an attempt to describe the progress of public preventive medicine during the past year. But I shall assume that my text has been given me in the fact which is probably the reason for my invitation to occupy this most honorable place,—I mean my connection with the State Board of Health of Massachusetts, now in the twentieth year of its existence.

This board has passed through experiences which are more or less true of every other State Board of Health in the country; it has sometimes failed where success was due, and has succeeded where defeat seemed inevitable. It has illustrated the various stages of progress in the attempt, on the part of the State, to prevent disease; and has also, at some periods in its history, suffered from the interference of politicians and self-seekers:

This story, interesting as it might be in Massachusetts, would be quite out of place here, were it not true that we also have a fairly kept record of our vital statistics from the year 1842 to the present time.

Therefore, it has seemed to me that it would not be unprofitable, in this twentieth year of State preventive medicine, that I should attempt to answer some of the questions that may fairly be asked of those who have had a share in the public responsibility for the prevention of disease.

You will not need the assurance, I hope, that the example of our own State is used in no limited and provincial spirit. We have not hesitated to borrow, from our brothers in other States and countries, anything that offered the slightest promise of help in the unending struggle for the preservation of human life. We have relied upon their counsel and assistance, and have not been disappointed. On the other hand, the legislative act by which our board was established, has served as a model for many of the organizations subsequently formed.

Our interests then have been common; our methods similar; and the results will not be much unlike.

Another reason for using this local experience lies in the fact that our restricted territory and comparatively large population have brought about conditions which, fortunately for the majority of the States of the Union, will remain in the distant future; but which, sooner or later, will come to all, and almost inevitably sooner than they are expected.

That these experiences can be submitted to no tribunal so competent to interpret them correctly as the medical profession, is a proposition which scarcely needs an argument.

The State Board of Health of Massachusetts was established by legislative action in 1869. Local boards of health of not much efficiency had existed from the beginning of the century. The State board entered at once upon its duties, which were advisory rather than executive. Under the lead of wise men the public intelligence was quickened upon all the important sanitary questions, to such a degree that the succeeding years brought to the board added executive powers and larger appropriations. Seven thousand five hundred dollars were appropriated for the work of the board in its earlier years, sixty thousand dollars are the conclusive evidence of the peoples' belief in the value of protective medicine, and this does not include the large sum spent upon the registration report.

After ten years of most successful administration, it was thought advisable by the Legislature of the day to extend very widely the functions of the board by reorganization and the addition of the powers of Commissioners in Lunacy, and of the supervision of the public charities. The burden proved too great, and, after a few years, the original organization was restored, with enlarged powers.

The rights of the people to pure air, soil, water, and food, are recognized by the laws of the Commonwealth, and various statutes have been passed to secure these rights, and to prevent their infringement.

The board is charged to some extent with the duty of enforcing these rights, and preventing and punishing any violation of them, having for this purpose powers coördinate with those of the local boards of health.

The business of investigating and gathering information as to any matter pertaining to the public health, and of diffusing such information among the people, is also included in its functions.

Among the matters of which it thus takes cognizance, are the causes and prevention of infective diseases. For this purpose coördinate powers are given to the board with every local board of health, namely, the suppression of nuisances, including the regulation of noxious and offensive trades; the collection and diffusion of information relative to industrial hygiene, or the effects of different occupations, industries, and domestic pursuits upon people at various ages and under various conditions of life; the hygiene of schools, school buildings, and public institutions; the examination and investigation of public water supplies, and the prevention of their pollution; the investigation of drainage and sewerage places or systems, so far as they relate to the public health; the disposal and transportation of the dead; the inspection of food, drugs, and other articles affecting the public health; inquiries relative to the amount of intemperance from the use of stimulants and narcotics, and the remedies there-

for; investigations as to the infectious diseases of animals, so far as they may affect man; the editing of the registration report of the State.

What effect has all this had upon the health of the people as shown by the mortality rate? For that is the only trustworthy standard, under our present means of registration, by which to determine the effect of measures taken for the prevention of disease.

Without the assistance of well-conceived and carefully executed tables of vital statistics, communities are liable to the most erroneous impressions as to the actual effect of their surroundings upon the public health. Hence, our legislation in sanitary matters is in constant danger of becoming the reflex merely of vague rumors, hasty and incorrectly formed conclusions, or statements based solely on commercial and interested motives; unless it is distinctly understood that the devotion of human life, the disease by which it is cut short, and the preventable or inevitable character of the disease, so far as we now understand these qualities, are things which can be determined by intelligent and continuous investigation by experts, and should be no more the subject of guesswork than the truths of mathematics or the facts of chemistry.

Inasmuch as the task I have taken upon myself is the proof of the value of preventive medicine, let us take not the mortality rate as a whole, but the rates from certain specified diseases which are admitted to be controllable by means of vaccination, isolation, disinfection, or suitable sanitary precautions.

Let us then compare these rates in successive years, not only with each other, but also with the rates of those diseases in respect to which we possess no well-recognized powers of prevention. This comparison shall be made during the period of existence of our State Board of Health; not with the presumption that statute regulation, either in the hands of a State or municipal board of health, deserves all the credit of the improvement obtained.

During this period there has been an active and intelligent interest in all sanitary questions, steps have been taken on all sides for procuring purer water supplies, better drainage, food and drugs free from adulteration, tenement houses have been much improved, sometimes by private undertaking, and oftentimes under the compulsion of the law. But in all these movements the influence of the sanitarian has been predominant, and the improvement in the health of the people is regarded as the only just measure of success.

When regard is had to the facts that Massachusetts is one of the oldest settlements in the country, and, with the exception of Rhode Island, the most densely populated State in the Union, it would not be surprising were we to find there a relatively high death-rate. This would be true, even if the conditions which favor health there were equal to those found in other States.

The average death-rate for the thirty-six years, 1851-1886, was 19.40 per thousand living, the lowest death-rate in this period was 16.99 in the year 1867; the highest death-rate, that of 1872, being 22.85 per thousand. It was 18.38 per thousand in 1869, and 18.85 in 1886, the last registration year. So far then as these figures go, we have no changes of consequence.

But if we turn to the general classification of causes of death into zymotic, constitutional, local, developmental,

and violent, we find that there has been an almost constant decrease in the class of zymotic diseases during the period now under consideration.

PERCENTAGE OF CAUSES OF DEATH BY CLASSES.

YEARS.	CLASSES.				
	Zymotic.	Constitutional.	Local.	Developmental.	Violent deaths.
1870	25.6	26.6	28.1	15.6	4.1
1875	28.6	24.3	31.8	11.2	4.1
1880	24.5	23.7	38.8	10.1	3.7
1885	19.0	23.2	42.7	10.7	3.9

The years taken are census years.

The changes in the class of constitutional diseases have not been so marked as in those of the zymotic class, although the tendency appears to be constant in the direction of a decrease.

In the class of local diseases there has been a decided increase, from 28.1 in 1870, to 42.7 in 1885.

In the class of deaths from developmental causes, the changes in the last three census years are insignificant; as this class contains the deaths from teething and old age, it is to be expected that more accurate diagnosis will diminish its relative importance.

The percentage of violent deaths remains throughout essentially unchanged.

If we arrange the percentages of causes of death from zymotic diseases in two columns of ten years each, we shall find in the first decade, from 1867-1876, the average of these percentages to be 27.94; in the second decade, 1877-1886, the average has fallen to 22.4.

Let us examine more carefully the diseases which we have a reasonable hope of preventing by appropriate sanitary regulation. We shall find at the head of the list a disease which we can with certainty limit, if not abolish. As we pass down the line we shall come to diseases which are more and more dependent upon the special treatment of a physician and surgeon; and which can be but slightly, if at all, affected by the surroundings which the public officer of health can control.

It seems, however, to be true that with each succeeding year a larger and larger number of these are found to be the result of influences that can be removed.

For the first time in the registration history of the State, a year has passed without the record of a single death from smallpox; and this, notwithstanding the fact that we are in continual communication with countries where the protection of vaccination is not so generally given as it should be. One of our chief industries, also, the manufacture of paper, involves the use of materials which always carry with them the possibility of the presence of the contagion of this most persistent disease.

Many years of comparative immunity from smallpox had led to a disregard of the stringent laws for compulsory vaccination; and the State paid the usual penalty in 1872 and 1873; the mortality in the former of these years reaching 2.9 per cent. of the deaths from all causes, with 1029 deaths from smallpox.

The attention of the authorities was aroused, existing legislation was rigidly enforced, and additional powers,

when found necessary, were obtained. There has been no year since 1873, when the percentage of deaths from this cause to deaths from all causes has reached fourteen-hundredths of one per cent. (0.14).

Typhoid fever has, upon the whole, diminished both relatively and absolutely. In 1886, the percentage of deaths from typhoid fever to deaths from all causes was 2.15; in 1872, the year of greatest prevalence within the twenty years, the percentage of deaths from typhoid to deaths from all causes was 4.86—and the death-rate per ten thousand living was 11.1.

The diminution in the death-rate from this disease has been especially marked in cities with pure water-supply and good systems of sewers. The death-rate from this cause is substantially unchanged in the small country towns.

The death-rates from typhoid fever, per ten thousand living, in the census years 1865-1885 have been for the whole State

1865.	1870.	1875.	1880.	1885.
13.4	9.1	6.4	4.9	3.9

Scarlet fever has more than once astonished the medical world by a sudden assumption of great violence and fatality after many years of comparatively harmless prevalence. Graves has called the attention of the profession, in a most instructive manner, to the experience of Dublin, where from 1804, when an epidemic of great malignancy had come to an end, until 1834 the scarlet fever that occurred was very mild, at the latter date the disease burst in upon the city with all its old ferocity. It is, therefore, with some reservation that I use the figures of the registration as to this disease.

The record for thirty years shows a death-rate, per ten thousand living, reduced from 17.2 in 1857, to 1.7 in 1886. It is possible that we are only nearing the end of a series of benignant years, and that another may see the return of an epidemic over which we shall possess little control; still, it is the belief of our best observers that isolation and disinfection have had a sensible effect upon the spread of the disease.

Diphtheria first appeared in our registration in 1858, causing in that year eighteen deaths, reached its highest degree of prevalence in 1877, and since that year has much diminished in frequency, but has not again sunk to the low figures of the years 1870-73, when it constituted less than one per cent. of the deaths from all causes.

If in the present uncertainty of medical *diagnosis* with reference to croup and diphtheria, it is desirable to consider them together, and all deaths from croup are added to those resulting from diphtheria, we should not obtain conclusions essentially different from those above stated. An examination of our record shows that the reported deaths from croup are slowly and steadily falling in number, and that the two diseases rise and fall together in the scale of prevalence.

It is probable, therefore, that a more accurate diagnosis will hereafter transfer to deaths from diphtheria many cases which would in times past have been assigned to croup.

The relation of diphtheria to the grosser forms of insanitary conditions is not yet clearly made out. There is also a probability that some of the lower animals are attacked by it.

The degree of its prevalence in Massachusetts, in the

United States Census year 1880, was almost identical with the rate for the whole country; the general rate was 5039 out of 100,000 deaths from all causes, the rate in Massachusetts was 5010 to the 100,000. In England, in 1880, the rate was only 532 per 100,000, which does not vary essentially from the rate of the ten years preceding.

In the city of Boston, a notification to the Board of Health of all cases of diphtheria, as well as of certain other communicable diseases, is compulsory.

The Board in such cases causes a careful inspection of the premises to be made; in the year 1887, when 1049 cases with 316 deaths were reported, 927 houses were examined; 534 were found to be in defective sanitary condition, 393, on the contrary, were in good sanitary condition.

A rigid inspection of 900 houses, taken at random in any city would, I think, not be unlikely to show nearly as large a number of houses that would fail to satisfy an examination which is very apt to start out with the determination to find some sanitary defect.

It is a communicable disease in a very marked degree, but does not appear to have any other relation to filth than this, that the absence of proper cleanliness, and the presence of the material of contagion in the food, person, or surroundings are quite sure to go together.

It may also be assumed to be probable that a number of mild cases of the disease always exist, and are the unsuspected vehicles of the contagion. We know this to be true of almost all the diseases of this class, and I think we have hitherto taken the probable existence of such cases too little into account.

The diarrhoeal diseases, including diarrhoea, dysentery, cholera infantum, cholera morbus, and enteritis, have only changed place in the list as cholera infantum has varied.

Cholera infantum during the period of twenty years has diminished, though the fall has not been regular; dividing the period of twenty years into two decades, the average of the first yields a death-rate from cholera infantum of 13.51 per 10,000 living, the second an average of 10.32 per 10,000.

Dysentery, which in the first half of this century had several times appeared in epidemics of great severity, has thus far in the second half been steadily diminishing in importance. The improvement in domestic water supplies appears to have had some influence upon this reduction in number, so far at least as the question has been studied in certain cities in the State. Only 243 deaths out of a total of 37,244 are assigned to this disease in 1886, the smallest number recorded during thirty years.

Malarial fever caused, in 1886, 32 deaths, of which number 20, or 62.5 per cent., occurred in the five western counties which have but 26 per cent. of the population. Although serious epidemics have occurred in the eastern counties during the years 1884-'85-'86, they have thus far had little apparent effect upon the death-rate.

Statistics of disease, as well as those of mortality, would be an additional index of very great value for the sanitary condition of a district. In the case of the disease now under consideration, they would be of unusual value because portions of our State, exempt during the whole existence of our settlement, have been invaded by malarial fevers, and yet the resultant mortality has been insignificant. We can only say that malarial fevers

have increased beyond the increase in our population, and that this tender exotic has in New England found unfortunately some new conditions which favor its development.

The number of deaths from measles has been very variable through this period, this variability in mortality was more noticeable in the last half than in the first half of the period. The average of the latter half was also less than that of the first half. The number of deaths has ranged from a minimum of 19 deaths in 1879 to 428 in 1872.

The number of deaths reported as due to consumption in 1886 was 5897, the percentage of deaths from this disease to deaths from all diseases was 15.83. Arranging the deaths from consumption in two periods, 1867-1876, and 1877-1886, the average of the second decade is found to be 2.5 per 10,000 living less than that of the first decade; that is to say, from 33.7 to 31.2. There thus appears to have been an actual decrease in the deaths from this disease, and more marked in the second decade than in the first.

Our registration in its present form gives us no satisfactory answer to one of the most important questions that arises in the consideration of this disease. How often and under what conditions is the predisposition to consumption hereditary?

It is in the very nature of our life unavoidable that every individual must, at many times, be exposed to the contagion of tuberculosis; and yet it is within every physician's experience that many members of families with distinct histories of consumption in more than one generation do escape.

One of the most important and widely spread influences upon the origin and extension of consumption was announced twenty-five years ago by an honored President of this Association, the father also of State medicine in Massachusetts, and fortunately still living at an age, which, in him, one hardly ventures to call old, Dr. H. G. Bowditch, who, by his announcement and proof of a law of soil moisture and land drainage, in their influence upon consumption, has turned the attention of the world to conditions which can be controlled.

Pneumonia has generally held the second place on our mortality lists, and has not diminished in relative frequency in recent years.

The total number of deaths reported as due to cancer, in 1886, was 1104, the rates of fatal cases among females to the whole number has increased as follows:

1881	64.4	1884	66.6
1882	64.9	1885	68.8
1883	67.6	1886	69.7

If the statistics of cancer for twenty years are divided into two ten year periods, with death rates per 10,000 living, we shall find that there has been an increase, with a certain degree of uniformity, from 2.9 per 10,000, in 1867, to 5.6, in 1886, nearly double. In England and Wales very much the same increase has been noted, the proportion of deaths from cancer has increased regularly from 2.7 per 10,000 living in 1847, to 5.3 per 10,000 in 1882.

The number of deaths, in 1886, from the group of diseases attributed to the brain, was 3844, which, though a little less than in 1885, was still larger than that of any other previous year.

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The mortality rates per 10,000 in the Census years, 1860, 1865, 1870, 1875, 1880, 1885, were, respectively, 12.06, 14.39, 14.35, 16.42, 17.0, 20.01.

Deaths from alcoholism appear to have diminished in number, but it is confessed that the death-rate ascribed to intemperance directly is but an imperfect measure of the evils resulting from an excessive use of alcohol. Neither do the figures of the report convey any just idea of the actual or relative prevalence of the venereal diseases.

The fact that Bright's classical description of the diseased processes in the kidney, known by his name, was first published in 1837, and the slow progress made in the accurate medical diagnosis of these diseases during the half century, would lead us to expect in these diseases an apparent, marked increase from year to year. It has been assumed, also, that the conditions of modern life have brought about a large actual increase, either from irregular and luxurious living, or improper indulgence in food or drink. It has been claimed by some that the substances now frequently added to standard articles of food and drink, for the purpose of adding to their keeping qualities, or of fraudulently adulterating them, have an injurious effect upon these organs.

The difficulties of answering these questions is much enhanced by the fact that in the early years of our registration, when the real nature of diseases of the kidney was but imperfectly understood, very many of the deaths really due to this class were registered under the head of dropsy, another large class would appear as diseases of uncertain seat, and diseases "not specified."

With these facts in mind, let us tabulate the deaths from Bright's disease and other diseases of the kidney in one column, and the deaths from dropsy in a parallel column.

From an examination of the registration report of 1850 it appears that out of 16,606 deaths, there were 18 under the heading of Bright's disease, a ratio of 1.1 to total mortality per 1000; from dropsy, 416 deaths were recorded, a ratio to the total mortality per 1000 of 25.

In the years following the number of deaths in the first class has rapidly and steadily grown, reaching, in 1886, a total of 1135 deaths, a ratio to the total mortality per 1000 of 30.5; while the deaths from dropsy have as steadily, and almost as rapidly, decreased from a ratio of 25 per 1000 to 5.9 per 1000.

If we now add the deaths from kidney diseases to the deaths from dropsy, we obtain a ratio to total mortality per 1000, beginning, in 1850, with 26.1, and reaching 36.4 in 1886.

This is an increase startling enough to attract attention, and require investigation, but still not of the alarming character attached to the apparently overwhelming increase of Bright's disease and other kindred affections.

We have no evidence in Massachusetts that any of the substances generally used for the preservation or adulteration of food and drink have a markedly injurious effect upon the kidneys.

Another lesson may be extracted from these figures, it is this, that statistical nosologies, as well as laws for the protection of the public health, are educational, and founded upon the learning of experts, and will inevitably break down if they are too far in advance of the common knowledge.

The figures also show that in a sufficiently extended

series of years an explanation of an apparent discrepancy may sometimes be discovered.

This hurried glance at the registration tables will have shown this, I think, that in all the preventable diseases there has been a steady reduction, most marked in the case of smallpox, a disease that can only seriously affect a community through inexcusable neglect. I will not weary the ears of this assembly by dilating upon a subject on which all health authorities are agreed—the necessity for compulsory vaccination and revaccination, so long as the system is susceptible of the virus.

A single comparison may be made to demonstrate the saving of life in consequence of better sanitary conditions established by the authority of a board of health.

Probably no single instance of a surgical interference in a disease inevitably leading to early death, has attracted more attention, has deserved more admiration or has added more years to human life than the operation of ovariectomy.

The largest number of deaths in any one year in Massachusetts from ovarian dropsy was 51. We will assume that all of these lives might have been saved by ovariectomy.

Let me take now the city of Somerville, a suburb of Boston, with 29,971 inhabitants, by census of 1885, with natural conditions of soil of varied character, partly favorable, partly unfavorable, with a mixed population almost wholly occupied with business, trades, manufactures, and day labor. It has had an energetic and intelligent Board of Health, who have used the large powers conferred by our statutes wisely; they have a system of compulsory notification of the communicable diseases, rigidly enforced; they practise, so far as possible, isolation and disinfection. During their active administration and almost wholly in consequence of it, as I believe, the death-rate of the city has been reduced as follows: The present organization of a municipal Board of Health was established in 1878. In 1875, a census year, the death-rate was 22.86 per 1000; in 1880, 17.1; in 1885, also a census year, 16.68. The improvement is more marked yet, when certain unfavorably situated and crowded quarters of the city are separately examined.

But this examination is scarcely necessary to prove that the interference of a public health authority with ample powers and with such sanitary regulations as we can now carry out has saved more lives in a community of 30,000 people in a single year than could have been restored to health in the same period in a State of nearly 2,000,000 inhabitants, by an operation justly regarded as one of the greatest triumphs of American surgery. It may be objected that with all this apparent diminution in the mortality from selected diseases there has still been no reduction in the general death-rate, so far at least as the figures of the report are to be taken in evidence.

It is unfortunately true, that our reports had in the earlier years a less degree of accuracy than they now have, and that deaths were not so generally reported then as now. The records for the year 1855 were very carefully examined for the purpose of determining the completeness of the enumeration of the deaths in that year. It was estimated by a competent authority, as the result of this examination, that not far from sixteen per cent. of the deaths in that year had escaped registration. It is now confidently believed that this deficiency does

not exceed two per cent.; the registration by means of burial permits is now subject to revision by local boards of health as well as by municipal recording officers, and has become much more trustworthy.

Apart from fluctuations in the returns of deaths to the registration offices, there are reasons for believing that some of the conditions are not now so favorable to health as they have been.

The proportion of the population engaged in factories has largely increased; larger numbers of the people absolutely and relatively live in cities subject to the insular influences that prevail there.

In 1870, 63 per cent. of the inhabitants of the State lived in cities and towns of more than 5000 people. In 1885, the proportion had arisen to 73 per cent. There has also been a large addition to the native and presumably harder population of immigrants from foreign countries, whose adaptability to our climate and conditions of life is still uncertain.

Too great expectations seem to have been raised also by the very brilliant results of sanitary work in the older countries. Men had to deal there with all the evils incident to sanitary neglect that had endured for centuries, and in great cities at that. Here, on the other hand, the cities have contained a relatively smaller part of the total population and there has not been the same opportunity given for obtaining a result so striking as the reduction in London's mortality rate; for instance, from the high figures of the beginning of the century to her present fairly earned position of the healthiest very large city in the world.

It may be of interest, in this connection, to call your attention to some of the diseases which have attracted general attention, perhaps excited more interest in the public mind than all the other causes of death combined.

In forty-five years and eight months, ending 31st December, 1886, the registration reports of Massachusetts enumerate the deaths of 1,163,571 persons.

Smallpox has killed 5572 in this period and has given rise to more legislation than any other single disease, and is the one most easy to be controlled. One provision of law is the beginning and end of its regulation—that is, compulsory vaccination and revaccination.

Scarlatina has destroyed 37,666 lives, permanently impaired the value of a very large but unknown number, and the attempt to prevent it by sanitary regulation belongs to recent years.

Typhoid fever has been fatal to 45,781 human beings, generally in the prime of life, with an origin almost always in fecal pollution; it becomes epidemic whenever that pollution reaches a water supply, or food, especially milk. The general conditions which sustain this disease in its endemic form and favor its epidemic spread are the same which produce general unhealthiness. It has been well said that an epidemic of typhoid fever is a sanitary crime, and should be treated as such. But the peculiar history of this disease has had but little influence on legislation of a useful kind at least.

Epidemic cholera, the most persuasive apostle of sanitation that has been permitted to land on our shores, has destroyed, from 1832 to this year, not more than 2000 lives in all. In no one year, excepting 1849, the year of greatest prevalence, has it proved so fatal as scarlet fever, croup, typhoid fever, dysentery, pneumonia, whooping-cough, or apoplexy; and in 1849 even, the deaths from

cholera did not vary much from the greater part only of the deaths from consumption.

Hydrophobia is represented by seventy-two deaths; more than one-half of these occurred in the four years 1876-1879. There have been no deaths from it since 1881.

Thirteen deaths from yellow fever have not been considered of enough consequence to be given a place in the general summary. They occurred at the quarantine station at Boston, and may not, perhaps, have recalled to any public health officer's mind the fact that about the beginning of the century, yellow fever had, in more than one year, been a pestilence in the city itself.

Our experience in State preventive medicine has proved this, that while great good can be done to any community by the establishment of boards of health, whose functions are largely those of instruction and advice, it is certain that, sooner or later, the people will place in the hands of those capable of exercising such powers the machinery for making that advice effectual. And this has happened with regard to every subject which has been successively made an object of inquiry. There is now ample authority for the control of public water supplies and systems of sewerage; sufficient legislation to punish and prevent the adulteration of food and drugs.

One of the most encouraging signs is the more intelligent view taken by the public of questions to which self-interest seeks to attach a sanitary significance.

Perhaps the much-vexed question of "oleomargarine" may be taken as an instance. We have in this substance a legitimate commercial product which, when properly manufactured, is a safe and useful addition to our food supply. It can be so made, and is so made. When sold as natural butter it becomes an impudent fraud, and should be punished as such. But it is no more a matter of concern to sanitarians than the proper making of butter itself is, and some of our legislative bodies appear so to regard it.

It has been well said by one of the most eminent of the executive officers of health, Dr. Russell, of Glasgow, that nothing is more conspicuous than the helplessness of the individual, under the conditions of civilized life, to secure the physical basis of health.

How can any single individual in a crowded city make any successful effort to improve or even to ascertain the quality of the public water supply upon which he is exclusively dependent? What can he do to secure a sufficiently prompt and safe removal of the waste materials of his daily life? How can he analyze the ingeniously sophisticated article of food or medicine which may represent the ingenious employment of all the scientific skill that selfish capital can purchase? How vain it would be for him to attempt to prevent the crowding of the city, or the contamination of the air which he is obliged to breathe. Lastly, how can he recognize the presence of communicable disease, and, recognizing, keep it at a distance?

There is no help but in coöperation on the most extended scale possible—individual, municipal, State, and national. The individual must be compelled to give up his liberty to injure his neighbor. The great city must be restrained from converting the stream that flows past it into a sewer that shall poison the villages that cluster about its banks lower down in its course. The country farm-house must no longer, when a case of enteric fever occurs there, be allowed to be a menace to the water that supplies a thousand city homes. No State should permit

its own causes of disease, whether they are persons or things, to be transported into another State, nor pollute the common water supplies. Lastly, the general government should take cognizance of those causes of disease which can be controlled by no other power; or which are so general that the responsibility for them is national; or so overwhelming in their ravages that smaller political bodies have lost the power, if not the will, to protect the people.

Voluntary associations on the part of persons, towns, States, or nations even, will never establish a sufficient safeguard, when one dishonest or ignorant associate has it in his power to nullify all the effects of a neighbor's spirit of self-sacrifice and restraint.

Epidemic disease is an evil that cannot be left to work out its own cure, it widens its circle too rapidly, and the time is long past when any quarantine, using the word in its older sense, would prove sufficient to restrain a pestilence within the limits of the district whose sanitary crimes might have fairly deserved some punishment.

How, then, shall we organize for the protection of the public health?

For the individual, that he may not injure his neighbor through his own ignorance or that of his adviser, let the State give him some assurance that the legally used title of physician designates a person sufficiently qualified to give advice for the prevention and cure of disease, and a certainty also, that the quack who steals the title shall be punished.

Establish, by direct provision of State law, local health authorities for each well-defined unit in our various forms of local government—village, town, city, or country. Place in the hands of these authorities the execution of the laws of the State and all local ordinances and regulations pertaining to public health, impose upon them the duties of watching all those conditions which immediately affect the health of the people: water supply, sewerage, sanitary condition of school-houses and scholars, factories, tenement houses, and the markets; periodic inspection of the inhabitants to prevent the neglect of vaccination; house to house inspection at least annually. In brief, they should have all the powers which society assumes for protecting the public health.

To meet the possibility that some districts may not have intelligence enough to appreciate, or that powerful commercial or other interests may interfere with these laws, there should be a State authority with ample powers.

This would be called upon for the purpose of harmonizing the action of the various local boards, where the interests of various localities were involved.

It should have coördinate power with all local boards in cases of communicable disease, in order that its action may be prompt and salutary. It should be enabled to carry on scientific investigations as to the causes of disease; to suppress noxious and offensive trades, as it will often happen that some great industry will possess in a community an influence sufficient to control the local board of health. This condition did in fact exist in Massachusetts, and no act of our State Board of Health in its earlier years was more commended than that which transformed a town, pestilential and disgusting from some fifty slaughter-houses, into an attractive suburb of Boston. The business of slaughtering and rendering was not driven from the town, but was concentrated into one

well-regulated abattoir, from which there has never come a just excuse for complaint.

This authority should also have the supervision of the laws for the prevention of the adulteration of food and drugs.

It should have the general oversight of the public water-supplies.

It should have charge of the registration of vital statistics, and of the investigations of the diseases of animals, so far as they may affect the health of man.

The educational element should always be present in the work of the State and local boards of health; and as in all other affairs of life, the value of the lesson will stand generally in direct relation to the cost of it.

The person who receives the benefit of a sanitary improvement, should, if able to do so, pay a part, at least, of the cost, and should never be permitted to lose the sense of obligation on his part to prevent the spread to his neighbor of unsanitary conditions of his own making.

All the arguments that have been used for the existence of State health authorities are also available, it seems to me, for the creation and support of some organization for the protection of the public health in connection with the General Government. I think that the medical profession is agreed that no power less than that of the National Government will be sufficient to prevent the introduction of disease from abroad, or control its transportation from State to State.

There is, of course, a question as to what form the central authority should take, and how extensive should be its power.

"The well-being of the country," to use the language of the Constitution, should imply that we must know all that can be known about those diseases and causes of diseases which may affect the whole country.

Although the actual epidemic prevalence of disease of grave and frequently fatal character may be limited to certain districts, still the disturbance of commerce and the relations of life will extend to large sections of the whole country. Therefore, the National health authority should have the power and the means necessary for a thorough investigation of the communicable and epidemic diseases, and of the best means to prevent their spread. These investigations need not be limited to this country, in fact, it is quite evident that several of the most important diseases of this class must be also studied outside of the country, yellow fever for instance.

The General Government should also make available for use in all parts of the land, the information from foreign countries as to the prevalence there of contagious and epidemic diseases. Not simply such communications as may be made by consular officers, for these, as a whole, have probably no great scientific value, but that great mass of information which through one channel or another reaches Washington.

To this should be added the statistics of mortality and disease already published by our very many boards of health throughout the land, and not now readily available for use, except by difficult and tedious search through many documents accessible to but few.

In connection with this statistical work would naturally be associated some arrangement for the prompt receipt of information from all sections of the existence of dangerous communicable diseases, for the purpose of warning from a central office all interested communities.

A voluntary system of notification, established by the National Conference of State Boards of Health, has proved of much service, notwithstanding the fact that some of the great States have abstained from giving this information in a careful manner. But the usefulness of this method of communication has been seriously limited by the want of a central office, and the effective system for sending early advice in any required direction which the General Government alone could easily provide.

Not the least of the very many claims of the National Board of Health upon the medical profession was its attempt to secure uniform systems of registration of vital statistics, and a nosology adapted to the changed views now entertained as to the nature of many diseases. This work should be taken up again and carried on, if necessary, by liberal appropriations for the purpose of encouraging and assisting everywhere a continuous registration of vital statistics in a suitable manner.

Dr. Billings, the wise and experienced officer in charge of the "Mortality and Vital Statistics of the U. S. Census," says:

"But as the United States has no system of registration of vital statistics, such as is relied upon by all other civilized nations, for the purpose of ascertaining the actual movement of population, our census affords the only opportunity of obtaining even an approximate estimate of birth- and death-rates of a much larger part of the country, which is entirely unprovided with any satisfactory system of State and municipal registration; and the data which the census gives, imperfect as they are, are the only ones by which we can compare the healthfulness of this with that of other countries, or can ascertain, even approximately, the relative salubrity or liability to particular forms of disease of different parts of our own territory."

And again.

"Nothing pays better than good book-keeping in national affairs, and in no part of a nation's work is good book-keeping more useful than in keeping records of the life and health of the people."

The most troublesome point in the whole inquiry remains, How far should the general government enter into the management of quarantine?

Though I come from a State which has never asked the assistance of the authorities at Washington, during any pestilence within her own borders, and is not likely to do so in the future, and is at the same time fortunate enough not to have felt for three-quarters of a century the terrors of the pestilence that has wrought such havoc in other States; with all this I say, that it seems to me the duty of the whole country, through the national authorities, to assist those communities which are too weak to help themselves, and to undertake the health functions of local government for those too ignorant to know their remedies.

A satisfactory settlement of the question as to the powers to be bestowed on the national authority depends, it seems to me, very much upon the form of the organization. If that of a board should be selected, with an adequate representation of the separate States, then would there seem to be no serious objection to the bestowal upon this board of a direct control of quarantine. The points in dispute between the general government and the States would appear to be safe in the hands of a board of national authority and directly representative of the States.

It is quite probable that such a board might be somewhat cumbersome in form, and not altogether easy to control—which is far from being an unmixed evil; but there are many contrivances by which a large board can delegate its powers to an executive committee during the intervals between the general meetings of the full board—meetings which could not and should not, in the nature of things, be frequent. I can readily see, however, that this question of form is one for the lawmakers, rather than for our profession.

The only alternative seems to me to be a single officer at the head of a bureau, in connection with some one of the departments at Washington. An officer not charged with great executive powers, who shall have, if it is practicable, unlimited authority to investigate by himself or by competent experts, the questions which directly relate to public preventive medicine. He should be at the head of all the current medical statistical work of the government, with the exception of that of the public services. He should be in constant and harmonious relations with the scattered health authorities of the land, and should be permitted to coöperate with them in sanitary work. He should be subjected to the distractions of no other service; neither of the Army, nor of the Navy, nor of the Marine Hospital service.

The vast dimensions to which State medicine has already grown, the apparently unlimited fields upon which it has only just entered, make it evident that nothing less than all the thought and all the working hours of the best man are not too much to be devoted to the supervision alone of the investigations which ought to be made, not in one year of epidemic panic but through a series of years.

The only manifest advantage to this officer of a board of advice could, and would, almost of necessity, be afforded by some representation of the State Boards of Health, quite similar, perhaps, to that now existing in the National Conference of State Boards of Health. The need of easy and confidential intercourse with these intelligent, active, and responsible bodies would naturally suggest itself to the sagacity of any man who would be likely to hold this important office.

I believe that both the Department of Agriculture and the Bureau of Education have, from time to time, called to their aid, representatives of the agricultural and educational interests of the whole country.

Of the sanitary investigations carried on by the authorities at Washington, with the exception of those under the direction of the National Board of Health, it is not possible to speak with much satisfaction. Not that the scientific men in immediate charge of them were not entirely qualified for their work; it would have been very difficult to find men so competent as the great majority of them have been.

But it was very difficult, in a year of health in this country, to secure the necessary action authorizing investigations of diseases that might at any time enter our country; and there is every probability that it will be equally difficult to secure the means of continuing the work.

Dr. Shakespeare was sent abroad in the autumn of 1885, to make investigations of Asiatic cholera, then raging in Southern Europe. Beyond a few brief notices in the medical journals, one State Board of Health, at least, knows nothing through any official information

from any department at Washington, of the results of the inquiry. As the Board of Health alluded to, is charged with the coördinate responsibility of watching the second largest port of entry in the Union, which has a more frequent communication with cholera-infected ports than any other except New York, the failure to impart valuable knowledge, at this important juncture, is inexcusable.

Again, in 1885, at the Washington meeting of the American Public Health Association, as well as at the meeting of the Conference of State Boards of Health, measures were taken for bringing to the attention of Congress some of the alleged facts in regard to the preventive inoculations of Drs. Freire and Carmona.

Congress was asked to appoint a committee of experts to Mexico and Brazil and ascertain the truths of the statements made. Notwithstanding the apparent willingness of the authorities to grant the petition, the inevitable delay attendant upon National legislation prevented action until the summer of 1887, when the appointment of a single expert was authorized. The president, with great promptness, appointed an expert of the highest qualifications—and Dr. Sternberg made a journey to Brazil and subsequently to Mexico. The year does not appear to have been so favorable for his purpose of studying the subject during the general prevalence of the disease as one of the preceding years would have been.

Nor under his rigidly drawn letter of instructions does he seem to have had the advantages that would have accrued to an investigation less controlled by precise orders.

Unfortunately, the evidence submitted by Drs. Carmona and Freire appears to have been entirely insufficient to justify the claims made by them of the discovery of the yellow-fever germ, nor has a prophylaxis of yellow fever, by means of their inoculations, been yet demonstrated.

It is a disappointment not to have reached the result that seems only just beyond our grasp. These claims, however, had been advanced so confidently by men holding honorable positions; inoculations had been practised on a scale so extensive that a formal investigation had become a necessity. Dr. Sternberg's work is worth all the money that has been spent upon it many times over. The way has been cleared for an exhaustive examination of this most virulent of imported pests, an inquiry that should have no limit of time, short of the discovery of a sufficient cause, and, if possible, of a preventive; even if an expenditure of money be required only less than the number of dollars that may measure the country's commercial losses, but would represent most inadequately the country's sufferings under this scourge.

It will be a satisfaction to all of us, I am sure, if Dr. Sternberg is enabled to carry to a successful conclusion the work so faithfully and intelligently prosecuted from the Havana investigation in 1879 to the present day.

But it must be regarded as a misfortune that scientific work of this sort should not be continuous and free from the irksome burden of limited time and meagre appropriations.

I approach the conclusion of this possibly wearisome repetition of commonplaces with much diffidence; for I wish to say a few words about the National Board of Health, still, by act of Congress, in legal existence; by

neglect of Congress in a state of hopeless lethargy. This Board entered upon its work with every promise of success; the members of it were of the best that our profession could offer, its contributions to public hygiene, both by the services of its members and by the work of its experts, have their due and honored place among the records of such work the world over.

It demonstrated for the first time in this country, I venture to say, that local, State, and National health authorities could profitably and harmoniously unite in suppressing an epidemic of yellow fever, and preventing its spread from State to State; and that under the influence of an impartially vigilant sanitary inspection and treatment travel and commerce need not materially suffer.

Yet all this has not saved it from practical extinction. Mistakes were probably made, but they are trivial as compared to the merits of the general work of the Board.

I feel forced, therefore, to the conclusion that its organic form, quite distinct from any body of such powers with which I am acquainted, and, unlike anything in our National government, must explain the failure to survive the unjustifiable attacks made upon it.

The presence upon the Board of representatives of the Army, Navy, and Marine Hospital Service, however conspicuous may have been the merits of their respective representatives, was not advantageous. They represented interests which ordinarily are of far less consequence than those of the cities of New York, Chicago, New Orleans, or San Francisco. Their rivalries, while perhaps not necessary, appear to have been persistent and mischievous.

It would not be possible, I think, to select seven men—that being the number of the appointed members of the board—who should adequately represent the various divisions of the country.

The States are not accustomed to a representation at the hands of other States; and the State not represented will find it difficult to understand the principle of selection.

The great States of Ohio and Pennsylvania have not been represented on the existing Board.

Is it well to wait until a new outbreak of yellow fever, or the landing of cholera, gives us legislation founded only on the weakness of fear?

I cannot but think that it is better to have the substance of things, whether it comes in the form of a Bureau of Health or Board of Health, provided only, that some part of the great resources of the Nation shall be turned to the protection of that property which is, at least, as valuable as the fabrics of a Massachusetts mill or the wool of Ohio's sheep; I mean the protection of that greatest property of all—human life.

ORIGINAL ARTICLES.

GALL-STONES OR SOAP? OLIVE OR COTTON-SEED OIL IN THE TREATMENT OF GALL-STONES.

BY D. W. PRENTISS, M.D.,
OF WASHINGTON, D. C.

QUITE a number of reports of cases have recently appeared in the medical journals, of the treatment of

biliary colic by the use of large doses of olive oil, in which relief has been obtained, and in which are mentioned the appearance in the stools of numerous semi-solid, rounded masses of varying size. Some of the reporters have characterized these masses as gall-stones, while others, criticising this diagnosis, say they are concretions from the excess of oil taken, which latter is the correct position. The latest case is reported in the *Medical Record* of April 14, 1888, in which Dr. Thomas W. Street, U. S. N., says they are really gall-stones, for "when dried they exhibit facets."

All the cases heretofore reported have been in reference to the use of olive oil. Considering the fact that cotton-seed oil is so nearly identical in all its properties, I ordered it instead of olive oil in the case here reported; its effects also seemed to be identical.

I first made use of olive oil, eight or ten years ago, in the case of a man who had had repeated attacks of biliary colic, and had previously taken various remedies without relief. After taking twelve ounces of olive oil, he passed, as he thought, a large number of gall-stones, and his health immediately improved. He had no return of the attacks of colic as long as he continued under my observation, which was about two years.

In December, 1886, a case came under my care, of repeated attacks of violent pain in the region of the liver, followed by jaundice.

Mr. R., about forty years of age, Government clerk, with correct habits, an active, hard worker when well, but of spare habit. He became very much emaciated under these attacks, which recurred so frequently that he was continually jaundiced. I could discover no organic disease of the liver. He was under treatment from December, 1886, to June, 1887, by various remedies, among which were quinine, mercurials, terebinthinated ether, muriate of ammonium, and cod-liver oil. But he did not improve, and early in June he consented to take a pint of cotton-seed oil, and being a man of resolution, he drank the whole pint, keeping it down with difficulty.

I instructed him to look out for gall-stones, and the next morning his wife brought me triumphantly a number of semi-solid, greasy looking balls of varying sizes, from a pea to a hickory-nut. Mr. R. was greatly relieved, the jaundice shortly disappeared, and he continued well until December, 1887, when the attacks of colic and jaundice recurred. A pint of cotton-seed oil was again prescribed for him, and taken as before—this time, however, with more difficulty in swallowing and retaining it than the first time. The following morning he brought me a dozen or more of these greasy looking, semi-solid balls, taking great comfort in believing them to be gall-stones, and said he had passed a "pint of them." He was relieved, and, up to this date (April, 1888), has had no return of the disease.

I did not deceive him as to the nature of the concretions, thinking his state of mental satisfaction over this extraordinary discharge of gall-stones could do no harm. Besides, I was not quite sure myself what they were, though believing them to be concretions of the oil taken. I placed them in a wide-mouthed bottle for further examination, and found, after a few days, that they had liquefied.

In talking over the subject with Prof. H. W. Wiley, Chemist of the Agricultural Department, he expressed doubt if the oil could be saponified in the intestines to the extent which the case seemed to indicate, and kindly offered to analyze the specimen. The specimen was sent to him, and I append his report as it was made to the Chemical Society of the District of Columbia. This analysis is of special interest, as it is, I believe, the only analysis of these concretions upon record.

Dr. Robert T. Edes, in his new text-book on *Materia Medica and Therapeutics*, 1887, p. 287, has the following expression: "Large doses (of olive oil), a pint per diem, have been prescribed for gall-stones, with the result of producing discharges of small, semi-solid masses resembling and sometimes mistaken for gall-stones. They are, however, really lumps of soap, formed by the oil with the alkalies of the intestinal secretions." The analysis of Prof. Wiley confirms the statement of Dr. Edes that these masses are true soap.

Prof. Wiley's "Note" is as follows: "The action of the gastric juice on fat seems to be confined to separating therefrom all connective and enclosing tissue, and thus setting the fat free. It is found in the stomach in large globules, and passes the pylorus unchanged. The pure intestinal juice seems to exert no action whatever on fats, and these substances are said by Busch to appear in the feces unchanged, when subjected to the action of the intestinal excretions alone.

"Flint says, that while the action of the pancreatic juice in emulsifying fat is undisputed, there is no evidence that in normal digestion there is ever any saponification. The fats found in the thoracic duct are always neutral, and do not contain any free fatty acid. On the other hand, Bernard has shown that the pancreatic juice outside of the body has a distinct power of saponifying fats. Landois and Sterling, however, recognize the saponifying power of the pancreatic juice in normal digestion, but attribute the result to a fat-splitting ferment called steapsin. The process of emulsification is said to go on with much greater rapidity when the fat in question contains a trace of free acid. The surface of each fat globule becomes coated with a thin film of soap, which is soon detached, carrying with it minute particles of fats. The repetition of this process secures finally a complete emulsification. Both the soap and emulsion are absorbed. The authors state

further that soluble fat soaps represent only a fraction of the fats which are absorbed, the greater part of the neutral fats being absorbed in the form of an emulsion. Absorbed soaps, however, have been found in the chyle.

"Dr. Prentiss, of this city, administered to a patient a large dose (a pint) of cotton-seed oil. In the dejecta were found large numbers of moderately hard, ovoid bodies which the patient thought were gall-stones. They were brought to Dr. Prentiss, who preserved them in a stoppered bottle, and sent them to me for examination.

"On reaching me the whole had melted to a viscous mass resembling soft soap. On examination, it proved to be a true soap, easily soluble in alcohol, yielding fatty acids, insoluble in water on treatment with an acid. After saturation with hydrochloric acid, the chlorides of the alkalies were separated from the fatty acids by filtration, evaporated to dryness, ignited to low redness to drive off any ammonia and to destroy organic matter; the residual chlorides dissolved in water, filtered through a small filter, evaporated nearly to dryness, dissolved in alcohol, and treated with platinic chloride: a distinct precipitate of potassio-platinic chloride was formed. The chief part of the alkali, however, was soda. This is an interesting case, showing the complete saponification of a large quantity of oil by the pancreatic juice and bile, and the passage of the greater quantity of soap thereby formed, unabsorbed, through the alimentary canal.

"Since the favorable effect of alcohol in promoting saponification is so well established, the department of the patient in question in respect of the ethics of temperance would be a matter of interest."

A CASE OF CLUB-HAND.

BY JAMES K. YOUNG, M.D.,

ASSISTANT SURGEON TO THE ORTHOPEDIC DISPENSARY OF THE
UNIVERSITY OF PENNSYLVANIA.

My attention was recently called to a case of club-hand of traumatic origin, which presented some etiological features of interest.

The mother aged eighteen, primipara, illegitimate; father healthy, large-boned man. No history of nervous disease or deformity. The labor was very tedious, and forceps had to be applied at the superior strait. The pelvic measurements were probably justo-minor of very slight degree, about one-half an inch in every diameter. The extraction lasted about three hours, and was very difficult.

On delivery the head was found to measure fifteen inches in fronto-occipital circumference. On the forehead to the left of the frontal suture was an open wound, three-fourths of an inch long, through which projected a sharp spicula of bone. The fragment was replaced, the wound dressed antiseptically, and apparently healed; but about the second day there ap-

peared a large hematoma at the site of the wound and at the same time the following deformity was noted: The fingers and thumb of the right hand were flexed, the hand was markedly adducted, somewhat flexed at the wrist, forming almost a right angle with the radial side of the forearm, in the radiopalmar position. The muscles were firm on the radial aspect of the forearm.

The child died on the fifth day, and the deformity disappeared some twenty-four hours before its death. The hematoma was deeply incised under the impression that suppuration had occurred. This was, however, a mistaken idea, but a large quantity of blood escaped at the time, and was followed by a consecutive hemorrhage, so that the child was very anæmic up to its death. Some time after this hemorrhage the deformity disappeared, probably upon the removal of pressure. At the autopsy a T-shaped fracture ran to the left of the frontal suture, each arm extending five-eighths of an inch. The skin over it was beginning to slough, and in the dura mater immediately beneath the fracture was a dark, congested area of beginning slough. The brain was intensely congested, and there was a marked serous effusion, the cause of death.

This case, then, presents for study one of those rare deformities, club-hand, the cause of which was a lesion of the cerebrum received during extraction.

In man, records of destructive lesions of the motor areas, in the whole or part, of the cerebral cortex, have now accumulated to a sufficient extent to leave little doubt that if there be a destructive lesion of the middle third of the cortex of the ascending¹ frontal or ascending parietal convolution, there will be paralysis of the arm of the opposite side. The fracture of the skull was about in this position. But in this case the deformity was not one of paralysis, but of contraction of one group of muscles over another. Bovior,² in his excellent article, has placed these cases of club-hand under the second head, "contracture of certain groups or isolated muscles."

This contraction Gowers³ has described as "initial rigidity," due to irritation, and that this was probably its nature is confirmed by its disappearance upon removal of the cause.

The interesting facts in the case are the occurrence of club-hand coincidently with hæmatoma, and its disappearance on the subsidence of the latter.

222 SOUTH SIXTEENTH STREET.

MEDICAL PROGRESS.

The Treatment of Pruritus Pudendi by Peppermint Water.—ROUTH has used peppermint water as a lotion in pruritus

at Charing Cross Hospital, and describes his mode of use and results as follows:

The B. P. preparation of aq. menth. pip. answers well, but is bulky for carrying about, and is incapable of concentration unless rendered alkaline. This is best done by borax, as being in itself soothing and antiseptic. Patients can easily make their own lotion, as required for use, by putting a teaspoonful of borax into a pint bottle of hot water, and adding to it five drops of ol. menth. pip., and shaking well, the parts affected to be freely bathed with a soft sponge.

If no cracks or sores are present, this lotion will remove the itching, but if there be eczema, etc., or rawness from scratching, it is inapplicable, olive oil, with five grains of iodoform to the ounce, being then more useful. The greatest and most permanent relief is afforded in the neural form, especially in the reflex pruritus which often accompanies pregnancy, and which then may take the place of reflex sickness or vomiting. It is also very useful in the pruritus which occurs in the climacteric, or in elderly women, in whom it may be only part of a general pruritus, and also in those cases of women of all ages, where the urine simultaneously becomes of very low specific gravity, without any evidence of having a gouty or granular kidney as a remote cause.

In pruritus due to pediculi, ascarides, an irritable urethral caruncle, an endocervical polypus, early cancer of the cervix, distention of Bartholini's ducts or glands, the leucorrhœa of vaginitis, endocervicitis, and metritis, or the irritating discharges of advanced carcinoma uteri, or to a gouty or diabetic diathesis, the drug excels all others, cocaine inclusive, in affording relief, whilst endeavors are being made to remove the cause.

In two obstinate cases of uncontrollable pruritus of pregnancy, where this remedy gave only temporary relief, the patients were cured by applying iodine liniment to the angry-looking cervix uteri, which method has been used successfully by Dr. John Phillips and others for the similarly severe vomiting of pregnancy.—*British Medical Journal*, April 14, 1888.

The Transplantation of Mucous Membrane.—At the recent Congress of German Surgeons, WÖFLER, of Gratz, spoke of the value of transplantations of mucous membrane. He said that where cicatrices are produced in cylindrical organs of the body, which are lined with mucous membrane, an operation could only be useful if it were possible, after excision of the scar, to unite the mucosa. But that is impossible in many cases. Therefore he had employed the method of Thiersch (the transplantation of portions of epidermis) with great success. After having excised the thickened and indurated tissue from impermeable urethral strictures, he transplanted mucous membrane from a prolapsed uterus. The operation was completely successful. In the same manner he transplanted mucous membrane from a prolapsed rectum on to the conjunctiva in a case of blepharoplasty. He succeeded even in transplanting mucous membrane from frogs, pigeons, and rabbits with good results.—*British Medical Journal*, April 14, 1888.

Strophanthus as an Antipyretic.—DR. A. ROVIGHI, of Bologna, in experimenting on the effect of tincture of strophanthus (prepared according to Professor Fraser's directions) in cases of cardiac disease, came to the con-

¹ Landois and Sterling, vol. ii. p. 976. Horsley and Beevor, Proc. Roy. Soc., 1886.

² Dict. Encycl. de Sc. Méd., Paris, 1871, p. 363.

³ Diseases of the Nervous System, vol. ii. p. 75.

clusion that it was much inferior to digitalis and caffeine in its power of regulating disordered action of the heart, relieving dyspnoea, and increasing the excretion of urine. He was, however, struck by the way in which it seemed to lower the temperature; and he, therefore, tried it in various febrile affections with very satisfactory results. Thus in four cases of pulmonary phthisis, in which for months there had been considerable pyrexia, and in which other antipyretic remedies were useless or were badly borne by the patient, tincture of strophanthus in doses of from four to six minims every six hours reduced the temperature by two or three degrees. In a lad suffering from tubercular disease of the intestine with peritonitis, with a temperature of 104° F., three minims of the strophanthus tincture every six hours brought the temperature down to 98.5° F. in the course of twelve hours, and as long as the remedy was continued the temperature never rose beyond 99° F. In a patient with tubercular disease of the left hip, a pyrexial temperature of 103.5° F. fell to 98° after the administration of fifteen minims (five every six hours) of tincture of strophanthus. In a case of typhoid fever in the second week four to six drops every six hours lowered the temperature by two degrees. In all these cases the drug eased headache, lessened the quickness of the pulse, and produced a feeling of comfort in the patient, and did not in any instance give rise to symptoms of collapse, nor to disturbance of the gastro-intestinal canal, nor profuse sweating. Dr. Rovighi states that these clinical observations were confirmed by experiments on rabbits, in which tincture of strophanthus in doses of ten or twelve minims lowered both the general and the local temperature to a very marked degree. On the other hand, Dr. V. MARTINI, of the University of Siena, has (*Sul Valore Antipiretico della Strofanto*, Siena, 1888) tested the alleged antipyretic properties of strophanthus with absolutely negative results. He used a tincture prepared by Merck, of Darmstadt, of the same degree of concentration as Fraser's, and also one made by Messrs. Burroughs, Welcome & Co., according to Professor Fraser's latest formula. He tried it in cases of phthisis, tubercular peritonitis, broncho-pneumonia, acute rheumatism, erysipelas of the face, acute purulent cystitis, and hysterical pyrexia. From ten to fifty drops were given daily in three, four, or more doses at regular intervals. The thermometric readings were carefully noted every three hours for three or four days before and after each experiment, as well as during the course of it; in some cases the temperature was taken every hour whilst the drug was being administered. In the majority of cases no effect whatever on the temperature was observed; in a very few instances there was a slight fall, extending only to some fractions of a degree, which was followed almost immediately by a return to the former level. Dr. Martini concludes that strophanthus has not the slightest value as an antipyretic.—*British Medical Journal*, April 7, 1888.

Antipyrin in Diabetes.—At a recent meeting of the Therapeutical Society of Paris, DUJARDIN-BEAUMETZ reported that he had given antipyrin in doses of from 8 to 30 grains to three diabetic patients, and had observed a diminution in the quantity of urine passed, the quantity decreasing from five or six quarts to two or three quarts in twenty-four hours. The quantity of glucose passed was now lessened.

FÉRÉAL had begun the treatment of a case of diabetes with antipyrin in doses of 25 grains daily; the treatment was interrupted by loss of appetite and vomiting, on giving antipyrin.

PAUL had overcome the tendency to nausea by giving bicarbonate of soda with antipyrin.—*Gazette Hebdomadaire*, April 6, 1888.

Iodine in Malarial Cachexia.—MIRASCHI, of Salonica, prescribes as follows for severe malarial cachexia:

Tinct. iodin. comp.	12 gtt.
Tinct. nucis vom.	10 gtt.
Aquæ,	
Glycerin.	aa 1½ 3.

To be taken in three doses, half an hour before meals.—*Revue Gén. de Clin. et de Thérapeutique*, April 5, 1888.

Extirpation of the Larynx in Italy.—CACCIOPOLI, of Naples, is reported by the *Journal of Laryngology* for April, 1888, as having performed the following operation:

A woman, fifty-two years old, was operated upon December 14, 1887, for a large tumor (soft sarcoma) of the thyroid gland, which interfered with the breathing, and the weight of which (as stated after the extirpation) was about two pounds. Three weeks later there was a recurrence, which was treated with Volkmann's spoon and cauterization. A later recurrence necessitated a third very difficult operation, during which the Professor was able easily to convince himself that the tumor was adherent to the thyroid and cricoid cartilages and the first rings of the trachea. On February 7th a new tumor was found, involving the right half of the thyroid cartilage. Laryngectomy was decided upon, and performed on February 19th. The abstractor, who had the honor of being present, was very happy to congratulate the operator. Up till now everything has progressed satisfactorily. The larynx and the first six rings of the trachea were extirpated, and it is to be hoped that the thirteenth laryngectomy practised by Italian surgeons may be crowned with complete and satisfactory success.

Papoid Digestion.—RUTTAN, of McGill University, in the *Medical Herald* for April, 1888, reports his conclusions from experiments with papoid, as follows:

Papoid is especially useful for removal of diphtheritic membrane. The conditions present in the pharynx are just those which retard the action of pepsin and pancreatin, but do not influence papoid. The medium in which it is required to act is practically a neutral one and the temperature low; there is present, besides, a large excess of the products of digestion which does not affect papoid—indeed, it is most energetic in a concentrated medium. Moreover, papoid has been shown clinically to lessen very greatly the disagreeable fetor of the disease. Painting on a five per cent. solution, freshly made, every two or three hours, has been found to give the best results: the fetor disappears in a few hours and the membrane in from twelve to eighteen hours becomes thin and glairy.

It would seem to be especially indicated in those forms of dyspepsia in which peptic digestion is greatly impaired and in which the secretion of gastric juice is very weak.

Papoid, therefore, promises to be a powerful auxiliary in combating those two great diseases—diphtheria and dyspepsia.

Chlorate of Calcium in Eczema.—LIER, in the *Monatshefte für Praktische Dermatologie*, No. 8, 1888, gives the following formula for the use of chlorate of calcium in eczema:

Ung. zinc.	20 parts.
Talci,	
Ol. cadin.	aa 5 "
Aq. dest.	10 "
Calci chlorat.	2 "

This paste has been found especially useful in chronic, obstinate eczema.

Acetic Acid and Ergot as Ecboles.—MAHOMED, in the *British Medical Journal* of April 7, 1888, writes as follows on this subject:

Since Dr. Grigg called attention to the value of vinegar as an ecboles, I have frequently used it for that purpose. And I have also found that four drops of the strong acetic acid (representing nearly half a drachm of vinegar) combined with strychnine have been successful in bringing about contractions of the uterus after ergot had failed. In one noteworthy case where in a very weak and anæmic woman the pains, after continuing feebly for a day or two, seemed to be leaving her, and ergot had been exhibited (the waters having broken), I found acetic acid and strychnine produce sharp and effectual pains.

The same thought, therefore, occurred to me as to Dr. Francis, of the possibly good results of combining it with ergot, and, in addition, observing that acetic acid could extract the active principle from colchicum and ipecacuanha, I asked Messrs. Corbyn to make a preparation of ergot, using acetic acid as a menstruum, with a standard surplus of free acid. In a short time I received from them two samples, one of ergot extracted by acetic acid, of which a fluidrachm represented sixty grains of ergot with ten minims of free acid; the other an alcoholic extract of ergot, which also represented sixty grains of ergot and ten minims of free acid to each drachm.

Both preparations had the color of the ordinary extracts, but the acetic acid frothed when shaken, which, of course, the alcoholic extract did not do. The acetic acid process should be more economical than the spirit method.

In a case where there was retained discharge after labor I gave some of this extract, and when the medicine was exhausted wrote a prescription for a similar dose of *B. P.* extract, to which I also added some bromide of potassium, which is stated to aid the involution of the womb. The case was still unrelieved on my next visit, the uterus being obviously distended, so, after syringing out the cavity, I told them to have the medicine made up again, when the patient said, "Oh, sir, the medicine you gave me at first brought away something every time, but this medicine has done no good." This seems like a comparative test in favor of the acetic extract.

In a case of flooding, due to a large fibroid, I found that twenty minims injected deeply into the buttock gave rise to no local irritation, and there was no bleeding the night following, but there needs further experience before

attributing this result to the drug. Ergotine disks did not always control it.

Corrosive Sublimate for Hardening the Brain for Anatomical Study.—DIONRIDOFF, of St. Petersburg, has employed a 7 per cent. solution of corrosive sublimate to harden the tissues of the brain and nervous system. Small pieces of tissue were placed in this solution from seven to nine days, after which they were put in alcohol, 50, 70, and 96 per cent., for twenty-four hours. This method of hardening preserves the contour of the cells; the tissue so hardened cuts and stains well, and is easily preserved.—*Fortschritte der Medicin*, April 15, 1888.

The best Solvent for Corrosive Sublimate.—GARRÉ is quoted by the *Fortschritte der Medicin* of April 15, 1888, in reporting his experiments on permanent solutions of corrosive sublimate. He found acetic acid the best adjunct for dissolving corrosive sublimate, as follows:

Acid. acetic. concen.	m. 8.
Hydrarg. bichlor. corros.	gr. 15.
Aquæ font.	1 quart.

The Actual Cautery in Epilepsy.—At a recent meeting of the Société des Hôpitaux of Paris, M. FÉRÉ presented a patient who, six months after an attack of hemiplegia, was seized with epilepsy, the attacks recurring every fortnight. The actual cautery was applied to the side of the head supposed to correspond to the cerebral lesion, and the result was that in the space of one year the patient had only three attacks, and it is now five months since the last one. M. FÉRÉ treated seven other patients under similar conditions, and the amelioration obtained was very satisfactory.—*Medical Press*, April 11, 1888.

The Prognosis of Extirpation of the Larynx.—MAYDL, of Vienna, relates that in one of his cases which had been free from recurrence for twenty-five months, this afterward occurred, and he, therefore, believes that a case cannot be considered to be definitely cured until three years after operation, merely because recurrence has not been observed within this time. Of sixty-five cases operated on, thirty died in a short time after operation, twenty died within nine months after operation from recurrence. Eight cases were at this time without recurrence, but in only two cases could it be said that a definite cure had been effected (thirty-four months and four years after operation).—*Journal of Laryngology*, April, 1888.

A Hypnotic for Use in Alcoholism.—MANN, of Brooklyn, in reporting good results in the treatment of alcoholism, states that he found the following a useful hypnotic. At night two tablespoonfuls were given:

R.—Tr. opii deod.,	
Ext. hyoscy. fld.	aa 3j.
Chloral hydrat.,	
Pot. bromid.	aa 3j.
Tr. capsici	3ss.
Tr. aconit. rad.	m.v.
Aq. menth. pip.	q. s. ad. fl. 3iv.—M.

—*Brooklyn Medical Journal*, April, 1888.

THE MEDICAL NEWS.

A WEEKLY JOURNAL
OF MEDICAL SCIENCE.

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SATURDAY, MAY 12, 1888.

THE CINCINNATI MEETING.

CINCINNATI, May 10, 1888 (*By Telegraph*).—The meeting of the American Medical Association this year has proved a notable success. The attendance was large, and represented every section of the country. Near the centre of population, Cincinnati, by the convergence of many railroads, is a focal point for travel, but this does not wholly account for the presence of the unusual number of men of mark, particularly from the cities of the Atlantic states. The differences growing out of the organization of the International Medical Congress appear to have ceased with the occasion that gave them birth. In this respect private advices amply confirm the impression received from the public addresses. The assiduity of a few mischief-makers has not availed to stem the current that sweeps the Association into its ancient course of national good feeling. This consummation is of no small importance to the future welfare of the Association.

The past has shown that the most certain and not the least valuable function of the Association is to bring into community of sentiment men of widely separated areas, who have common needs for State legislation. The appeal in the President's address for burial of recent contentions was warmly applauded. His main topic was medical education. In spite of the fact that the subject has been thrice

beaten by the flail, he managed to separate some grains of value from a study of the statistics of the Bureau of Education. Acknowledging that all attempts of the Association to regulate the medical colleges have so far proven conspicuously futile, he still hoped that there are means not yet exhausted. His proposition is that by combined action of committees of legislation, every State could be induced to make laws requiring of the colleges the highest standard under penalty of revocation of their charters. Anyone at all familiar with the ways of thought of the average politician sees at once that this proposition must remain a dream. Dreams have their uses in the way of suggestion, and however impractical the reform proposed, the feeling of discontent with the present methods spreads, and a needed impulse is given in the right direction.

In his Address in General Medicine, Dr. Bartholow presented some new facts to support the view that the best, if not the only, reliable basis for scientific therapeutics is the knowledge of the action of drugs on the tissues and organs. This basis is to be acquired largely by inferences from physiological experiments. As a clear and cogent statement it merited the warm approval, which was by common assent, accorded to it.

Dr. W. W. Dawson, of Cincinnati, was elected President, and after a spirited contest, Newport was chosen as the place for the next meeting. In selecting Newport, the Committee very properly recognized the claims of a State and of a city which has never before had the honor of entertaining the Association. Notwithstanding this valid reason the invitation of Philadelphia came within a few votes of being accepted.

CONTACT-LENSES.

In the *Archiv für Augenheilkunde*, xviii. p. 283, DR. EUGEN FICK, of Zurich, describes his attempts to correct irregular astigmatism by the use of a glass shell inserted like a watch crystal or an artificial eye, immediately in front of the affected cornea. The intervening space being filled with fluid, the irregularities of the corneal surface are practically wholly substituted by the regular curve of the "contact-glass," with the result of raising the vision in one case from $\frac{1}{8}$ to $\frac{1}{2}$ of the normal. His experiments

were begun with puppies; and after finding that clouding of the intervening fluid, with roughening of the corneal epithelium and injection of the conjunctiva, followed the wearing of the glass for several hours, he reached the result that, by use of a sterilized two per cent. solution of grape sugar, this was obviated, and the glass could be worn without irritation for eight or ten hours. Six patients of Prof. Haab's Polyclinic were then tried, with the notable result above given in one case—the others showing little improvement of value. As the number of suitable cases is naturally limited, he commends the method to others who may have opportunity of employing it, without waiting till he himself shall have wider demonstration of its utility.

As the glass is practically invisible, moves freely with the eye, and is free from the limitation of the field of clear vision, which is such a drawback in the wearing of ordinary spectacles, especially when strong, the method gives promise of real usefulness, not only in cases not otherwise corrigible, but even in conical cornea and other extreme errors of refraction where good central vision is obtainable in the usual way. Any desired curve may be given to the new cornea, so as to correct a regular as well as the irregular ametropia. Protective glasses might be required to make the patient feel safe from accident by splitting of the delicate shell, although hardly more fragile than an ordinary artificial eye. The method was experimented with by Young, in the early part of the century, but Fick none the less deserves credit for its clinical application.

THE Committee of Arrangements of the Congress of American Physicians and Surgeons makes the preliminary announcement that this Association will hold its first triennial session in the city of Washington, during the 18th, 19th, and 20th of September next. The meetings of the Congress will be held in the evenings, beginning at 8 P. M., and those of the societies composing the Congress will be held during the daytime, according to the programme each may respectively provide. The sessions will be open to the profession.

The Local Committee of Arrangements of the Congress has secured places of meeting for the Congress and each society in close proximity, so that the members of the respective societies can interchange attendance at pleasure, without inconvenience.

It is the intention of the Executive Committee of

the Congress to print the programmes of all the societies by August 15th.

The Committee of Arrangements is composed of one member of each society represented in the Congress, and its Chairman is Dr. S. C. Busey, of Washington.

THE Georgia Medical Association recently held, at Rome, its annual session. The following officers were elected for the ensuing year:

President.—Dr. J. S. Todd, of Atlanta.

Vice-Presidents.—Dr. J. B. S. Holmes, of Rome; Dr. E. R. Anthony, of Griffin.

Secretary.—Dr. K. P. Moore, of Macon.

The next meeting will be held at Macon, on the third Wednesday in April.

At the last meeting of the College of Physicians of Philadelphia, a handsome gavel, consisting of the bust of Hippocrates, admirably carved, was presented to the College, with a note from Dr. A. Jacobi, President of the Academy of Medicine, of New York.

On the gavel was a silver plate with the inscription, "Presented to the College of Physicians of Philadelphia by the New York Academy of Medicine."

It is always pleasant to record such fraternal courtesies between distinguished bodies.

AGAIN has smallpox stolen past the quarantine at New York harbor, and made its appearance in Brooklyn. The case, or cases, came from Aspinwall, on the steamer "Newport," arriving April 12th, with eleven steerage passengers, and also the ship's surgeon, down with the disease. On the 16th, it is asserted, the Health Officer permitted fifty cabin passengers to "come up," and among these was a child of sixteen months, who, with her mother, was taken to Brooklyn. The child had been vaccinated at quarantine, but it nevertheless developed the disease, and was discovered by the medical inspector on the 26th. It is now known that the "Newport" had one or more cases of smallpox on board on her last southerly trip.

At the commencement of the University of Pennsylvania, held last week, the degree of M.D. was conferred upon 114 graduates. The class presented to the institution a portrait of Dr. R. A. F. Penrose, who has just resigned the Chair of Obstetrics, after

a service of twenty-five years. The Trustees, last Tuesday, elected to fill the vacancy created by this resignation, Drs. Barton Cooke Hirst and Howard A. Kelley, as Associate Professors of Obstetrics and the Diseases of Women. Both appointees are well equipped for their work, and their selection gives general satisfaction, and it is believed will tend to maintain the high reputation of the Chair of James, Dewees, and Hodge, with which are associated many of the brightest traditions of obstetric teaching in America.

DR. C. D. PALMER, Professor of Obstetrics in the Medical College of Ohio, was thrown from his carriage by an ungovernable horse, and severely, it is feared fatally, injured, last Sunday in Cincinnati. Fracture of the skull and cerebral laceration are feared.

THE meagre authentic information given to the public as to the condition of the Emperor of Germany, indicates that the disease is making steady progress, notwithstanding the temporary improvement which follows the occasional exacerbations. Our contemporary, the *British Medical Journal*, in its issue of April 28th, states, on the authority of a special telegram from Charlottenberg, that it will be understood that the reported improvement in the condition of the Emperor refers only to the incidental complications which have recently arisen, and not to the essential disease, which appears to make steady progress, though with alternations of quiescence and activity which have already on several occasions given rise to delusive hopes, followed by paroxysms of somewhat exaggerated alarm. It further states that "from information we have received from a trustworthy source we have reason to believe that a false passage was made in replacing the tracheotomy tube, as this operation was followed by considerable hemorrhage; but it can, we are informed, be clearly proved that neither of the Emperor's English medical attendants is responsible for this unfortunate occurrence."

The same journal's Berlin correspondent writes that "the *Kölnische Zeitung* recently stated that Mr. Hovell had irritated the wound in attempting to replace the tube. Mr. Hovell has written to that journal flatly denying this. He asserts that there was no bleeding till Professor von Bergmann vainly tried to introduce the new canula—an operation which had finally to be performed by his assistant, Dr. Bramann. As Dr. von Bergmann has not con-

tradicted this statement, it may be accepted as true. Immediately after the introduction of the new tube the Emperor's temperature became raised, and there was a purulent discharge from the wound. For two days it was feared that pyæmia would set in. Professors Leyden and Senator, who were called in, agreed that the lungs were not affected. Since then no authentic news has been published. The official bulletins tell little or nothing of any real importance. The fever is believed to be due to some accumulation of pus in the neighborhood of the trachea. One thing is unfortunately too clear, namely, that the illness is rapidly tending to a fatal issue."

A PRIZE of \$500 from the Elizabeth Thompson Science Fund of Boston, has been awarded to Professor Rosenthal, Professor of Physiology at Erlangen, for "Investigations upon Animal Heat in Healthy and Diseased Organisms."

THE initial article in this month's *Scribner* is an interesting story of pilot life and sighting a wreck, by Dr. W. P. Northrup, which shows that its talented author is as much at home in seafaring life and the use of nautical terms as in the pathological laboratory or the demonstration of O'Dwyer's intubation tubes. "In the Steamers' Track" is a well-told tale, amply meriting the leading place it occupies.

DR. EDWARD SWIFT DUNSTER, for fifteen years Professor of Obstetrics and Diseases of Women and Children in the University of Michigan, died on the evening of May 3d, of pneumonia. He was born in Maine in 1834, and received his education in the arts at Harvard, and graduated in medicine at the University of the City of New York, in 1859. In 1861 he entered the regular army and served as a surgeon in the Army of the Potomac, and subsequently became medical inspector. He resigned in 1866 and recommenced the practice of his profession in New York. From 1866 to 1871 he was the editor of the *New York Medical Journal*. He was Professor of Obstetrics in the University of Vermont from 1868 to 1871, and in the Long Island Medical College from 1869 to 1875. In 1873 he was appointed to the same chair in the University of Michigan, and he removed to Ann Arbor, where he soon acquired a large practice. He was deeply interested in the subject of medical education, and did much to shape the present course at the University of Michigan.

SOCIETY PROCEEDINGS.

AMERICAN MEDICAL ASSOCIATION.

*Thirty-ninth Annual Meeting, held at Cincinnati,
May 8, 9, 10, and 11, 1888.*

(Specially reported for THE MEDICAL NEWS.)

(By Telegraph.)

TUESDAY, MAY 8TH.—FIRST DAY.

THE Thirty-ninth Annual Meeting of the American Medical Association assembled amid clouds and rain at 11 o'clock in the Music Hall. The war of the elements was not sufficient, however, to prevent the assembling of about fifteen hundred members and spectators. On the platform were the officers, newspaper representatives, and others.

At the hour named the assembly was called to order by Dr. W. W. Dawson, Chairman of the Committee of Arrangements; and the meeting was opened with prayer by Rev. Robert Gibson, D.D.

The President, DR. A. Y. P. GARNETT, of Washington, took the Chair.

Vice-Presidents Duncan Eve, of Tennessee; Darwin Calvin, of New York; C. J. Otagan, of North Carolina; and A. Stedman, of Colorado, were called to the platform.

AN ADDRESS OF WELCOME

was made by the Hon. Amos Smith, of Cincinnati. He said: "There are sometimes events that come upon us where one man is appointed to set forth all that which may be wished by an entire people; but it has befallen me, as Chief Executive of the City you have honored with your presence to-day, to endeavor to speak for its citizens a welcome that they feel that you are deserving of, and if words do not suffice from my tongue to-day to make you feel that you have been most heartily welcomed, then may I say that I do not fear that within the coming days of stay among us the actions of our fellow-citizens will be such that you will not leave the gates of Cincinnati without feeling that you have been most hospitably received, and judging by the hospitality with which you have been received will know that the welcome must have been most cordial. Such action as was taken by the Mayor of this City when your Association met here twenty-one years ago is now not necessary. It is related that the police were instructed that if they heard laughing or perhaps a little noise upon the streets, it was only those rollicking doctors, and they were not to disturb them. I can assure you that you will not be disturbed in your enjoyment, and I bid you a hearty welcome."

DR. C. G. COMEGYS then welcomed the Association on behalf of the profession of Cincinnati. He said—"Mr. President and Gentlemen of the American Medical Association: On the part of the medical profession of this city, I am happy to welcome you to Cincinnati, and to assure you that we, all the citizens, feel greatly honored that you have selected this, the most central city of the Nation, for the Annual Congress. Twice before—in 1850 and in 1867—the Association has held its annual councils here, and your professional brethren and the people cordially united to make those occasions encouraging and profitable. It is sad to feel that the

majority of those who then assembled and those who greeted you, have passed away. But it is evident from the numbers, freshness, and manly vigor seen on every side that their genius and spirit still live, yea, are augmented and fully competent to carry forward the great purpose of your predecessors. These large assemblies of medical men in increasing members, prove indubitably that the value of the Association is no longer questioned, to say nothing of the scientific dimensions involved. It is clear that the meetings of the Association give satisfaction to all. It is certainly a great pleasure for men who are engaged in common duties and modes of life, in widely separated areas, to be thus brought together for the establishment of acquaintanceship and friendship that promote community of action for a higher performance of their beneficent work among the people.

"It is a wonderful sight to behold so large a body of cultured men who are striving, always and everywhere, to enlarge public happiness by investigations for the prevention of those causes and agencies that undermine public health and welfare, when if complete success should crown their lofty aims, the remunerative part of their labors would be extinguished. The medical profession is unceasing in its labors to trace devastating epidemics to their lair, to avert the march of infectious diseases, to isolate those who are suffering therewith, to disinfect localities, to point out the most healthful modes of living in regard to light and sun, purity and abundance of water supply, the evil of adulterated food, the overtaxing of labor, the prevention of ill-assorted and consanguineous marriages, and abuses of the brain, and suppression of those two giant evils of civilization, intemperance and prostitution.

"This period of your assembly is one of extraordinary interest to our people, for this is the centennial year of the settlement of Cincinnati. It is an heroic age and a glorious race which we seek to commemorate. One hundred years ago a body of adventurous men with their families descended the beautiful Ohio, on rudely constructed barges and landed on this shore.

"It seemed to be a stupendous undertaking then to plant themselves in the primeval forest on this wild coast with no means of immediate sustenance but the stores in their barges and what they might hunt in the wilderness.

"But they were men of no common mould. They brought with them courage, culture, and integrity, and were full of the high aims of the eastern people who had first conquered their independence and secured the vast British possession south of the Canada line. They were imbued with the loftiest motives that can animate the soul, and fearing nothing but God, they confronted the wilderness and its warlike denizens with that dauntless courage which renders individuals and communities where their cause is just unconquerable. There was no lack of cultivated people; indeed, in the pulpit and at the bar and in medicine there were men possessed of acknowledged ability and collegiate training, and several of them had a national reputation; but there was no master mind who, as a leader, could bring into combined action all the needs and desires of a growing and refined community, for the establishment of institutions for instructions in higher learning.

"In the meanwhile, however, there was growing to manhood, in the wilds of Kentucky, one whose sons had

caught the spirit of the times and who at length came to Cincinnati with the largest desire to take part in her future welfare. Such a mind, so full of enthusiasm for knowledge in Nature's arcana, could not remain in the dull routine life of the planter. It was happily directed toward medicine, and Daniel Drake came to this city in the first year of the century and apprenticed himself to Dr. Goforth as his office boy, student, and apothecary. His opportunity for formal instruction in books had been very limited, but the lack of opportunity was greatly compensated by his habits so thoroughly acquired of observation, comparison, and meditation. After a patient and methodic service of six years in which he had made himself familiar with the best books, he felt he must go to the famous school where Rush, Physick, and Wistar taught. With scanty means he completed his long journey on horseback and gratified the wish of his heart. On his return with enlarged views of culture, he entered busily into practice and rose rapidly in public estimation. Besides medicine, he investigated at large, subjects in natural history and physics, and also studied the aborigines and the monuments that marked their residence in our valleys. He wrote also descriptions of the rising city, the Miami valleys, and their prospective wealth. These writings, particularly the scientific ones, attracted wide attention, so that when, at a later period, he returned to Philadelphia to attain his degree, he was received by the faculty of the University and the distinguished society of Philadelphia as a savant.

"To the south of them, in Kentucky, lay another flourishing frontier town of nearly equal population with Cincinnati. It was not only distinguished for the heroic patriotism of its people, but also for their high social culture and the organization of the Transylvania University. Lexington first held aloft the torch of science in this wild world, and was recognized as the Athens of the West. There, under the auspices of Professor Dudley, in 1817, the first medical school of the West was organized, and Drake was elected one of its professors. Dudley and Drake were of the same age, and both Kentuckians. They first met as students in Philadelphia. Dudley graduated in that year, 1806, and four years later went to France, joined the French army as a junior surgeon, and served on Larrey's staff in many battles ending, I believe, at Waterloo. Drake was a voluminous writer on professional and general topics, but his greatest work was his systematic treatise of the diseases of the interior valley of North America, to which he devoted more than twenty years of travel throughout the vast Mississippi valley. Though Drake has long been dead, yet all his great undertakings remain and are flourishing."

Referring to the present of Cincinnati, Dr. Comegys said: "The medical college of Ohio, now a medical department of the University of Cincinnati, was never more prosperous; the clinical and pathological school of the hospital is attended by 400 students. It has a large and growing library and museum.

"Drake's great example and his precepts have continued to affect medical life in Cincinnati. I think it my duty to say to the members of the American Medical Association that a spirit of original research has ever been carried forward here; and in a period of forty years of professional life in this city I have never known so many young men of thorough training as in our own schools, and supplemented by severe study in the clinical schools

of Great Britain and the Continent, as are now among our active practitioners.

"A few last words about our city at large. We hope that you will take a general view of its poetical situation. It is peculiar and striking. If you ascend our hills you will find that they are built of those stratified sedimentary masses that belong to the lower Silurian epoch. Between all of these layers quantities of marine shells are found, that prove that they formed the bottom of a great salt sea."

DR. GARNETT then delivered

THE PRESIDENT'S ADDRESS.

He chose as his subject the mission of the American Medical Association; its paternal relation to the entire profession of the United States imposes upon it duties and responsibilities of the gravest character. He said: "Taking a retrospective view through nearly half a century of existence we have no reason to be discouraged. But while we feel gratified by contemplation of the fruits of our labors in the past, it is obviously important that we should not be flattered into a belief that we have accomplished our mission, and permit ourselves to lapse into supine indifference with regard to a preëminently important object which remains to be worked out, through the instrumentality of this Association. I refer, gentlemen, to radical and thorough reform in the present system of medical education in the United States." The present faulty methods of education were then reviewed in connection with statistical tables of methods of instruction and requirements for admission into the various institutions of our country. He then submitted the following propositions:

"*Proposition first.* That a standing committee, to be called the Committee on Legislation, shall be appointed for each State and Territory, and the District of Columbia, to consist of five members of the medical profession in good standing, three of whom shall have no official connection with any medical school or college, whose duty it shall be to carry out, as far as possible, the following instructions:

"*a.* Each one of said committee, or a majority thereof, shall attend the sessions of their respective Legislature from time to time, as their duties may require, for the purpose of using all honorable means looking to the reduction of medical schools in the United States, and the consequent diminution of the annual number of graduates; that, as a practical measure to this end, they urge the passage of a law requiring that in the future granting of charters for creating medical schools there shall be a clause in every such charter requiring that all schools or colleges thus created shall demand a full term of four years' study before granting a diploma thereof, and that no student shall be admitted to matriculate who has not passed satisfactory examination, oral and written, in the ordinary branches of academic study; and further, that any college failing to show a greater number than fifty matriculates annually for three consecutive years shall forfeit its charter and be abolished.

"*b.* That they use all diligent efforts to secure an ordinance creating in each State or Territory, where no such board at present exists, and in the District of Columbia, a board of medical examiners which shall have no connection with any medical school, and which shall be required to examine all applicants for license to practise

medicine in the States, Territories, and the District; and that any person who may be detected practising any branch of the healing art without a license granted by the said board, shall be subject to such penalties as the law may provide.

"That this committee may be authorized by statute to select and nominate to the Governors of the States, Territories, and the District of Columbia, seven competent, learned members of the medical profession, to constitute such a board of examiners, who shall have exclusive power to issue licenses to practise the art and science of medicine and surgery.

"c. That the Chairman of the said committee of five be required to submit at each annual meeting of the Association a report embracing a full statement of what has been accomplished by each.

"*Proposition second.* That the faculties of the several medical schools within the limits of the United States be once more urgently requested to call a convention at some central point for the purpose of consultation and adopting some general and uniform system of medical education, more comprehensive and rigid in its requirements, and more in accord with the spirit of the age and advanced progress of medical science, suggesting four years term of study, the requirements of a preliminary education including some knowledge of the classics. That any college or school which shall refuse to enter into such arrangement as may be decided upon by the said convention, shall be excluded from all connection with the American Medical Association, and its Alumni shall not be recognized as members of the regular profession."

He urged the adoption of more active steps toward the erection of the Rush Monument, as proposed at a former meeting. "We owe it to ourselves," he said, "to recognize the fact that in honoring the memory of such a representative of the medical profession we do honor to ourselves." He concluded by congratulating the Association upon the proud and enduring position occupied. "Resting as it does upon solid foundation, a moral, intellectual, and scientific basis, it has steadily increased from birth, gained in strength and influence, and won for itself the support and approval of our brethren throughout this country—to-day more powerful, more self-reliant, more progressive and stronger in the affection of its members than at any former period of its existence."

DR. W. W. DAWSON, Chairman of the Committee of Arrangements, announced an

INFORMAL RECEPTION

at the Burnet House at eight o'clock in the evening, to which ladies were invited.

SECTION MEETINGS.

DR. N. S. DAVIS announced that as some Sections had too much work on the programme for sessions of usual length, he would offer a resolution that the Sections be permitted to meet at eleven o'clock in the morning. Adopted unanimously.

DR. N. S. DAVIS announced that as the Secretary of the

JUDICIAL COUNCIL

had tendered his resignation owing to ill health and removal to the Pacific Coast, no preliminary notification of the meeting of the Council had been given. Fortunately

there was no work before the Council. He then gave notice of a meeting to be held in the Burnet House parlor May 9th, at nine A. M., for the purpose of organization and to consider whatever might be referred to the Council.

INVITATIONS

were read inviting the Association to visit the Chamber of Commerce, the College of Music, and the Technical School of Cincinnati.

WEDNESDAY, MAY 9TH.—SECOND DAY.

The Association was called to order at 10 o'clock by the President.

DR. ROBERTS BARTHOLOW, of Philadelphia, delivered the

ADDRESS IN MEDICINE,

which will appear in full in our issue of next week.

The report of the Trustees of

THE JOURNAL

was read by Dr. J. H. Hollister, Secretary. The number of members and subscribers was stated to be 4572, exchanges and extras, to complete files, raised the total weekly issue to 5000 copies. The receipts above the dues paid to the Treasurer of the Association, embracing subscriptions, advertisements, etc., for the year ending March 31st last, was \$11,897.98, or \$4,317.35 above the receipts for the preceding year. The total expenditures for publishing for the year ending March, was \$16,261.67, being an increase of \$3099.66 over the preceding year. The increase was caused by the addition of four pages of reading matter and of four to six pages of advertisements, and by the sending out of sample copies.

The *Journal* is, therefore, an actual source of revenue to the Association, and the Board of Trustees recommended that the increased receipts be expended in improving the *Journal*. They have decided upon using new type and better paper during the next year. They recommended an enlargement of the editorial corps, and requested that the exchanges and books sent for review be placed at the disposal of the editor instead of being sent to the library of the Association.

The report of the

COMMITTEE ON DIETETICS

was presented by Dr. E. A. Wood, of Pittsburg, Chairman. It recommended the importance of forming a section on dietetics and dwelt upon the recent prominence given to the subject, and the necessity for its greater recognition by the profession.

DR. WOODBURY, of Philadelphia, presented the report of a sub-committee on infant feeding, and

DR. L. A. SAYRE, of New York, moved that the committee be authorized to give the work a proper place in the programme for next year's meeting. Adopted.

DR. BENJAMIN LEE, of Philadelphia, moved that the committee be continued, with instructions to present at the next meeting a report embodying the general principles to be observed in a rational system of dietetics. Adopted.

DR. N. S. DAVIS, of Chicago, moved the adoption of the three proposed amendments to the constitution: First, to amend Section 2, relating to *Membership by Ap-*

application, by substituting the following: "Membership by application shall consist of such members of the State, County, and District Medical Societies entitled to representation in this Association as shall make application in writing to the Treasurer, and accompany said application with a certificate of good standing, signed by the President and Secretary of the Society of which they are members, and the amount of the annual membership fee of five dollars. They shall have their names upon the roll and have all the rights and privileges allowed to permanent members, and shall retain their membership on the same terms." Adopted.

Second, to amend Section 5, relating to *Standing Committees*, "The first and third paragraphs should be stricken out, leaving intact only the second paragraph, relating to the Committee of Arrangements. In place of the first paragraph to be erased, your committee recommend the insertion of the following important provision, viz.:

The General Committee or Council shall be composed of two members from each State and Territorial Medical Society entitled to representation by delegates in the Association, and from the Medical Departments of the U. S. Army, Navy, and Marine Hospital Service. They shall be chosen by the members registered and present at each annual meeting, from each State, Territory, and from the Medical Corps of the U. S. Army, Navy, and Marine Hospital Service, acting separately, on the third day of each annual meeting; each delegation reporting the names of the members chosen to the Permanent Secretary of the Association on the same day, that they may be announced by him at the opening of the morning session of the fourth day. At the first election each delegation shall choose two members of the General Committee, one of whom shall serve one year and the other two years, and at each annual election thereafter one member shall be chosen to serve for two years, thus making the term of office of members of the General Committee two years. It shall be the duty of the General Committee, thus constituted, to organize by choosing annually a Chairman and Secretary, and such sub-committees as may be found necessary to facilitate the work that may be assigned to it; to meet annually at the place and on the day preceding each annual meeting of this Association, and as often during that week as may be necessary; to nominate, on the third day of each annual meeting, all the general officers of the Association (none of whom shall be members of its own body), the members of the Committee of Arrangements, the Committee on Necrology, seven member of the Judicial Council, and three members of the Board of Trustees for Publication for election by the Association; to recommend the place and time of holding the next annual meeting; and to consider and report upon all subjects that may be referred to it by vote of the Association. The presence of one-third of the whole number of members elected to the General Committee shall constitute a quorum for the transaction of business. If, at any annual meeting of the Association it shall be found at the close of the general meeting of the first day that a quorum of the General Committee is not present, it shall be the duty of the President and Permanent Secretary to fill the vacancies in the Committee temporarily by selections from the lists of delegates registered as present from the States to which the vacancies belong.

In place of the third paragraph, the following:

"The Board of Trustees shall consist of nine members, three of whom shall be elected annually on the nomination of the standing General Committee, and shall serve for three years. It shall be the duty of the Board to provide for and superintend the publication and distribution of all such proceedings, transactions, and memoirs of the Association as may be ordered to be published, and in such manner as the Association may direct; and in doing this, it shall have authority to appoint an editor and such assistants, and determine their salaries, and procure and control such materials, as may be necessary for the accomplishment of the work assigned to it. Further, to facilitate its work, it shall be the duty of the Secretaries of the Association and of the several Sections, during each annual meeting, or as soon thereafter as practicable, to deliver to the Board, or such editor or agent as it shall appoint, all such records of proceedings, reports, addresses, papers, and other documents as may have been ordered for publication, either in the general sessions or in the sections. All moneys received by the Board of Trustees or its agents, resulting from the discharge of the duties assigned them, must be paid to the Treasurer of the Association, and all orders on the Treasurer for disbursements of money in any way connected with the work of publication, must be endorsed by the President of the Board of Trustees. It shall be the further duty of the said Board of Trustees to hold the official bond of the Treasurer for the faithful execution of his office; annually to audit and authenticate his accounts, and present a statement of the same in its annual report to the Association; which report shall also specify the character and cost of all the publications for the Association during the year, the number of copies still on hand, and the amount of all other property belonging to the Association under its control, with such suggestions as it may deem necessary."

DR. J. M. KELLER, of Arkansas, strongly objected to the proposed amendments.

DR. J. B. MURDOCH, of Pittsburg, moved to recommit the amendments.

DR. N. S. DAVIS, of Chicago, stated that their object was to imitate the British Medical Association, and take all the duties connected with the management of the Association from the general meetings, and confine it to the scientific and social features.

DR. VAUGHAN, of Ann Arbor, thought the very reasons given by Dr. Davis the best reasons for opposition to the amendments; the Association has no desire to abandon the management of its own affairs.

DR. MURDOCH moved that the amendments be made the special order of business for Thursday, at twelve o'clock, and his motion was carried.

THE COMMITTEE ON NOMINATIONS

was announced as follows:

Arkansas.—P. O. Hooper, M.D.

Colorado.—H. S. Orme, M.D.

Connecticut.—W. C. Wile, M.D.

District of Columbia.—D. W. C. Patterson, M.D.

Georgia.—R. Battey, M.D.

Illinois.—C. Gilman Smith, M.D.

Indiana.—T. B. Harvey, M.D.

Iowa.—P. W. Lewellen, M.D.

Kansas.—J. E. Minney, M.D.

Kentucky.—D. S. Reynolds, M.D.
Louisiana.—T. G. Richardson, M.D.
Maine.—A. Garcelon, M.D.
Maryland.—J. J. Chisholm, M.D.
Massachusetts.—Charles J. Belch, M.D.
Michigan.—W. Brodie, M.D.
Missouri.—F. J. Lutz, M.D.
Minnesota.—A. J. Stone, M.D.
Nebraska.—R. C. Moore, M.D.
New Jersey.—I. N. Quimby, M.D.
New York.—L. D. Bulkley, M.D.
Ohio.—Thad. A. Reamy, M.D.
Pennsylvania.—A. M. Pollock, M.D.
South Carolina.—T. J. Ellis, M.D.
Tennessee.—T. K. Powell, M.D.
Texas.—J. Bell, M.D.
Vermont.—M. H. Chandler, M.D.
Virginia.—W. G. Eggleston, M.D.
Wisconsin.—J. T. Reeve, M.D.
United States Navy.—W. T. Heard, M.D.
United States Marine-Hospital Service.—John B. Hamilton, M.D.

THURSDAY, MAY 10TH.—THIRD DAY.

The Association was called to order at 10 o'clock by the President.

Resolutions from the Kansas and Arkansas State Medical Societies

DENOUNCING QUACKERY.

and the advertisement of irregular practitioners in the daily and religious papers, were read.

The Committee on Nominations presented the following list of nominees as

OFFICERS FOR THE ENSUING YEAR:

President.—W. W. Dawson, M.D., of Cincinnati.
Vice-Presidents.—Drs. W. L. Schenck, of Kansas; Frank Woodbury, of Pennsylvania; H. O. Walker, of Michigan; J. W. Bailey, of Georgia.
Treasurer.—R. J. Duglison, M.D., of Philadelphia.
Secretary.—William B. Atkinson, M.D., of Philadelphia.
Librarian.—C. H. A. Kleinschmidt, M.D., of Washington.
Chairman of Committee of Arrangements.—Horatio R. Storer, M.D., of Newport, R. I.
Trustees of Journal.—Drs. E. M. Moore, of Rochester; J. H. Hollister, of Chicago; J. M. Toner, of Washington.
Judicial Council.—Drs. A. M. Pollock, of Pennsylvania; W. C. Van Bibber, of Baltimore; J. F. Hibberd, of Indiana; Charles S. Wood, of New York; J. McF. Gaston, of Georgia; W. H. O. Taylor, of New Jersey; George L. Porter, of Connecticut.
 To fill a vacancy, W. B. Phillips, M.D., of Kansas.
 To deliver addresses in
General Medicine.—William Pepper, M.D., of Philadelphia.
Surgery.—P. S. Conner, M.D., of Cincinnati.
State Medicine.—W. H. Welch, M.D., of Baltimore.
 The following sub-committee was appointed to fill vacancies in case of the declination of any of the appointees to deliver general addresses: Drs. J. B. Hamilton, of Washington; William Brodie, of Detroit; and A. Garcelon, of Maine.

Next place of meeting.—Newport, Rhode Island.

Time.—First Tuesday in June.

The Committee on

THE RUSH MONUMENT FUND

submitted a report stating that the collection of subscriptions was slow and unsatisfactory, although the project received universal approval and commendation. The Committee expressed the hope that the requisite money would soon be collected.

THE TREASURER'S REPORT

exhibited receipts to the amount of \$25,649.90, expenditures, \$23,242.07; and showed a balance of \$2407.83.

DR. KLEINSCHMIDT reported that the

ADDITIONS TO THE LIBRARY

for two years numbered 369 distinct titles. Total number of volumes in the library 7500, comprising 2850 titles. He recommended a subscription of ten dollars to the *Index Medicus*, which was ordered.

THE AMENDMENTS TO THE CONSTITUTION

were then considered.

DR. N. S. DAVIS moved that they be laid on the table for one year. Adopted.

The following new amendments were then offered:

To strike out the last clause in Section 7, requiring delegates to affix their names to the Constitution. Also to form a Section on Pharmacy to meet with the Association, but to have no voice in its transactions.

It was resolved that in future delegates and permanent members when registering shall

INDICATE THE SECTIONS THEY WILL ATTEND

and in which they will vote for Section officers.

DR. W. H. DALY, of Pittsburg, moved to reconsider the permission given for the

MEETING OF SECTIONS IN THE MORNING,

and after animated discussion this was carried.

THE PHARMACEUTICAL DISPLAYS.

DR. WM. BRODIE moved that hereafter the Committee of Arrangements be instructed not to arrange for a display of drugs, etc., in connection with the meeting.

DR. I. N. QUIMBY thought that this was going too far, as it might be interpreted as opposition to education by the Association.

The motion was laid on the table.

RESOLUTIONS FROM THE WOMEN'S CHRISTIAN TEMPERANCE UNION,

urging physicians to substitute other stimulants for alcohol, were read and then tabled.

THE OFFICERS OF SECTIONS

were then announced as follows:

MEDICINE.—*Chairman*, F. C. Shattuck, M.D., of Boston. *Secretary*, G. A. Fackler, M.D., of Cincinnati.

SURGERY.—*Chairman*, N. P. Dandridge, M.D., of Cincinnati. *Secretary*, W. O. Roberts, M.D., of Louisville.

STATE MEDICINE.—*Chairman*, J. B. Lindsley, M.D., of Nashville. *Secretary*, J. Armstrong, M. D., of Massachusetts.

OPHTHALMOLOGY.—*Chairman*, G. E. Frothingham, M.D., of Ann Arbor. *Secretary*, G. O. Savage, M.D., of Tennessee.

DISEASES OF CHILDREN.—*Chairman*, J. A. Larrabee, M.D., of Kentucky. *Secretary*, C. J. Jennings, M.D., of Michigan.

MEDICAL JURISPRUDENCE.—*Chairman*, J. G. Kiernan, M.D., of Chicago. *Secretary*, — Evans, M.D., of Baltimore.

OBSTETRICS.—*Chairman*, W. H. Wathen, M.D., of Louisville. *Secretary*, A. B. Carpenter, M.D., of Ohio.

DENTISTRY.—*Chairman*, — Rebwinkel, M.D., of Ohio. *Secretary*, E. P. Talbot, M.D., of Chicago.

Adjourned.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, April 20, 1888.

DR. TRENHOLME IN THE CHAIR.

DR. TRENHOLME exhibited a large

MULTILOCULAR OVARIAN CYST,

weighing twenty-eight pounds, which he had removed from a woman aged forty. The case presented no unusual difficulties and was doing well. It had been first noticed eighteen months before and had grown very rapidly.

DR. LAFLEUR presented the specimens obtained from an old man who had died after perineal section which had been performed for

URINARY INFILTRATION.

The patient, a man aged seventy-two, was suffering from severe urinary infiltration, which had come on after the use of instruments for retention of urine. He was admitted into the general hospital, under Dr. Shepherd, who immediately performed perineal section, and evacuated a large quantity of stinking, purulent urine and sloughing tissue, which occupied the perineum and had separated the rectum from the prostate gland. No trace of a membranous urethra could be found at the time of the operation, so a catheter was introduced into the bladder through the prostatic urethra, and the bladder thoroughly washed out with a solution of boric acid. The catheter was left in for drainage. The man at the time of the operation was in a very bad condition, and survived only thirty-six hours. At the autopsy the following conditions were found: œdema and gangrene of the scrotum, edges of the perineal wound sloughy; an abscess cavity about the size of a large walnut was found between the neck of the bladder and the rectum, and contained a little foul urine and shreds of necrosed tissue. No trace of the membranous urethra. Prostate gland enlarged. Both kidneys enlarged; the pelvis of right kidney distended and filled with urine, the pelvis of left kidney filled with pus; ureters much thickened. On section of left kidney spots showing commencing abscess. Pneumonia of lower lobe of right lung; upper lobes hyperæmic; commencing pneumonia of base of left lung. Heart pale, soft, and friable. Patient evidently died of heart failure occurring in course of pneumonia.

Dr. Lafleur also presented the specimens obtained from a patient under the care of Dr. Bell, who died from the effects of

ABSCESS FOLLOWING PERFORATION OF THE APPENDIX, COMPLICATED WITH IODOFORM MANIA.

The case was interesting also because the man during treatment had been affected with mania supposed to be due to iodoform. Dr. Bell gave the following history:

The patient, a very stout man, aged forty-five, of unsteady habits, was admitted into the general hospital in July 1887, suffering from symptoms of perityphlitis. He was discharged, apparently cured, in a few weeks, but returned in December with numerous sinuses in the lower part of the abdomen and scrotum. All these sinuses led to the right iliac fossa, which was occupied by much dense inflammatory tissue. These sinuses discharged a large amount of fetid pus. Dr. Bell, under whose charge the patient was, opened up and scraped the sinuses, and evacuated many pockets of pus, but could not find the source of the pus in the iliac fossa. The wounds were packed with iodoform gauze and a dressing of washed gauze applied. The temperature of the patient, which had ranged from 100° to 103° F., became normal, and he gained strength rapidly. Three weeks after he suddenly became maniacal. After this no dressings could be kept on and the patient's condition gradually grew worse, temperature became high and irregular, and two weeks after he died suddenly apparently from collapse. He never recovered his sanity. No family history of insanity. At the autopsy Dr. Lafleur found the following conditions: Abdomen distended, peritoneum contained five ounces of turbid fluid with flakes of lymph; no evidence of recent peritonitis. Appendix firmly matted to surrounding structures; perforation about a quarter of an inch long about its middle. Deep pigmentation and inflammatory thickening of tissues about the appendix. From the appendix sinuses, all of them with indurated and deeply pigmented walls, ran in three directions. (1) The oldest sinus beneath the cæcum upward and backward beneath the sheath of the psoas muscle to the internal arcuate ligament of that side, where it ended in a cul-de-sac. (2) The second sinus ran outward and forward over the iliacus muscle and divided in the abdominal wall into several branches which ran parallel to the fibres of the external oblique and opened externally to the lower wall of the abdomen. (3) The third sinus ran downward and forward through the pelvis and opened into the perineum externally. There was no abscess cavity about the cæcum or appendix. The liver was enlarged, and on the under surface of the right lobe there was a fluctuating swelling the size of a large orange, which on incision was found to contain five ounces of stinking pus. Another abscess was found on the upper surface of the right lobe near the coronary ligament. There were no thrombi in portal or hepatic veins. Spleen enlarged and soft. There is no doubt these abscesses were pyæmic.

DR. BELL read a paper on

SOME RARE FORMS OF URINARY EXTRAVASATION.

The first case was that of a sailor, aged thirty-two years, who was admitted into the hospital September 3, 1887, with retention of urine. He had suffered from stricture for fifteen years, and had been treated in marine hospitals all over the world. He was in the habit of passing himself a No. 2 silver catheter when he had attacks of retention; this time he failed to introduce the catheter or the stilette which he had tried. The house surgeon

passed a No. 2 catheter to draw off the urine, this was followed by a temperature of 105°. When he recovered sufficiently Dr. Bell performed internal urethrotomy, and dilated the canal to No. 34 French. There was only one stricture, viz., at the root of the penis. The following day patient complained of pain about the anus, and there was considerable tenderness in the perineum, but no swelling. Urine passed freely; the inflammation about the rectum and anus increased, and on the 12th of September it was found that the lower end of the rectum was everywhere surrounded by pus; a deep incision was made posteriorly through the sphincter for drainage, and the parts thoroughly washed out. Three days after a piece of the rectum, measuring nearly four inches in length, sloughed away. The patient after this rapidly improved, and left the hospital on October 24th. Defecation and micturition were normal. Dr. Bell said that he had no doubt that this patient, in passing a fine catheter, when thrust under the neck of the bladder about the apex of the prostate, made a false passage, behind the posterior layer of the triangular ligament, and that urinary infiltration took place in the peri-rectal cellular tissues, and caused the slough.

The second case of extravasation occurred into the pelvis from the reopening of a wound in the bladder which had been accidentally inflicted during the performance of an ovariectomy. The bladder when wounded had been immediately closed with Lembert's suture. The patient went on well for twelve days, the urine being drawn off with a catheter. On the thirteenth day a small painful lump was felt at the lower end of the abdominal incision; on the eighteenth day this lump suddenly disappeared, and at the same time there was pain and tenderness in the left iliac fossa and diminution in the quantity of urine evacuated by the catheter. The lower end of the wound was reopened and urine immediately flowed, and with the finger an opening could be felt in the fundus of the bladder. A sinus led down into the left side of the pelvis, through this a drainage tube was passed into the vagina, the whole cavity and bladder were then thoroughly washed out with boric acid solution, the wound freely dusted with iodoform, and a gauze dressing applied. Patient immediately improved. Four days later sloughs began to come away in enormous masses. To facilitate the separation of the sloughs an incision was made into the left loin. The parts were daily irrigated, and afterward dusted over with iodoform. By the 20th of October the wounds were looking healthy, and all serious symptoms had disappeared. The woman apparently was progressing toward recovery. On November 1st she suddenly developed an acute mania, and from this time, although the local conditions continued to improve, the patient had to be forcibly restrained, she refused food, and was in a continuous state of maniacal excitement. She died on November 8th, much emaciated. No autopsy could be obtained.

Dr. Bell regarded the acute maniacal condition as the immediate cause of death, and he thought the mania due either to the toxic effects of the iodoform or the absorption of ptomaines and leucomaines from the urine retained and decomposing in the cellular tissue of the pelvis.

There was no history of insanity in patient's family. Dr. Bell also said that this case more fully impressed him than ever with the unreliability of catgut as a suture

to retain the contents of a hollow viscus. Catgut was used in this case because no suitable silk was at hand.

A third case was mentioned, in which during the performance of an ovariectomy a strong fibrous band connecting the tumor with the base of the bladder was stripped off from the latter, tearing away a small portion of its peritoneal covering. Two weeks after the operation a small inflammatory mass appeared at the lower angle of the abdominal wound from which amber-colored fluid escaped. A large soft catheter retained in the urethra for ten days not only gave immediate relief to the symptoms, but effected a complete cure.

DR. FENWICK had listened to Dr. Bell's paper with great interest. Speaking of the case of ovariectomy where the bladder was accidentally wounded, he said that sometimes this accident was unavoidable; he himself had once wounded a prolapsed bladder when operating for hernia, but the patient ultimately made a good recovery. He had seen several cases of mania produced by iodoform, the most recent case was that of a stout old man on whom he had performed lateral lithotomy, iodoform was introduced into the wound, and the patient several days after became affected with mania which lasted about two weeks; he, however, recovered perfectly.

DR. SHEPHERD said that the autopsy in the case of perforation of the appendix showed that death had been due to septic poisoning. He did not attribute the fatal result to iodoform poisoning, though the man never recovered his sanity. He had assisted Dr. Bell when the numerous deep sinuses were laid open, and confirmed his statement of the great difficulty of tracing them to their source. Although a pericæcal abscess was suspected, yet, owing to the enormous thickness of the abdominal walls, the great amount of inflammatory tissue, and the severe hemorrhage, it was felt that further exploration was not justifiable. The autopsy showed that even had the abdomen been opened it is very probable the small abscess connected with the appendix would not have been found. The case of urinary infiltration following wound of the bladder during the performance of ovariectomy was also most interesting, from the fact of the probability of death being due to iodoform poisoning. He had had several cases of mania following operations, in all of which iodoform had been used, though only in small quantities, and he was in doubt whether or not to attribute the mania to iodoform, to the anæsthetic, or to traumatism. In all these cases there was an hereditary taint. Only one died, a case of sequestromy of the femur in a man aged twenty-five. Acute mania came on five days after the operation, only about one drachm of iodoform was used. In another case where a peri-cæcal abscess was opened in a man aged forty, acute mania came on the second day and continued one month; the patient recovered perfectly. A very small amount of iodoform was used, and only at time of operation. Several of the patient's immediate relatives died insane, and he himself was subject to fits of ungovernable temper. The third was a case of amputation of the breast in a woman aged sixty. A mild form of insanity immediately followed from the anæsthetic, and the woman never completely recovered up to the time of her death, a couple of years after, from cerebral hemorrhage.

DR. RODDICK was much interested in the cases of iodoform poisoning; he had seen one case follow excision of the breast. There was a history of insanity in the

family. The mania lasted only ten days. He thought iodoform should be used with more care, large quantities are not necessary; he had often found it produce severe eczematous irritation of the skin. He now used carbonate of bismuth in preference to iodoform, as it is non-irritating. He also sometimes employed boric acid and naphthalin. Lately he had been using hydonaphthol with benefit. It is odorless and non-irritating. Referring to the case of urinary infiltration reported by Dr. Bell, he thought the explanation of the case by supposing perforation of the prostate and posterior layer of the triangular ligament was not necessary, as it is well known that when the membranous portion of the urethra is perforated and urine escapes behind the anterior layer of the triangular ligament, the tendency of the fluid is to infiltrate backward toward the rectum and not to come forward. If the posterior ligament is perforated, then the infiltration extends behind the pelvic fascia into the pelvis and is generally fatal.

DR. STEWART had seen Dr. Bell's first case and considered it a case of iodoform poisoning. It is well known in these cases of mania from any cause that the mania remains long after the removal of the cause.

Cases in which there is much adipose tissue are more liable to poisoning, because the fat decomposes the iodoform.

DR. ARMSTRONG asked if it was necessary to use iodoform; it has been proved to have no germicidal qualities. He thought its use entirely unnecessary in the treatment of sinuses.

DR. TRENHOLME, referring to the case mentioned in Dr. Bell's paper, where the bladder was wounded, said that the bladder should never be emptied before operation. Should it be accidentally wounded then sutures of shoemaker's thread or silk should be used, not catgut, which is very unreliable.

THIRD FRENCH CONGRESS OF SURGERY.

Held in Paris from March 12 to 17, 1888.

(Specially reported for THE MEDICAL NEWS.)

(Concluded from page 502.)

LARYNGOTOMY AND TRACHEOTOMY IN CASES OF FOREIGN BODIES IN THE LARYNX.

DR. LABBÉ, of Paris, presented a small metallic star, which he extracted from the larynx of a child who had swallowed it, by laryngotomy; it had implanted itself exactly between the two vocal cords. At the moment the child did not complain, but during the night symptoms of suffocation set in; the physician called thought he had to deal with a case of spasmodic laryngitis. A few days later the child was brought to Dr. Labbé; he tried to take out the foreign body by the mouth, but finding it impossible to do so, he resorted to thyrotomy. He did not follow the good advice given by Morell Mackenzie, of performing tracheotomy before the other operation. Thyrotomy was performed at once, the thyroid cartilage opened on the median line; but at the moment M. Labbé was about to seize the foreign body a few drops of blood fell into the trachea and caused most dangerous fits of suffocation, which necessitated immediate tracheotomy. Respiration was only restored forty-five minutes later by artificial means. The heart, however,

continued to beat strongly during this interval. The cartilage was then replaced, also the soft parts. The canula could only be taken out on the eighth day. On the fifteenth the child was perfectly well. This shows the necessity of a preliminary tracheotomy before the extraction of foreign bodies can be made with security.

CHOLECYSTOTOMY IN CHILDREN.

DR. VINCENT, of Lyons, presented the history of a girl eight and a half years old, who had an enormous biliary tumor, containing three quarts. The diagnosis was made by elimination. The incision was made along the external border of the rectus muscle, which brought the operator on the convex surface of the liver; the incision had to be extended to the umbilicus, to reach the bladder, which was then extirpated. On the fourth day, a severe hemorrhage, coming from the liver, which had rubbed against the abdominal sutures, appeared, and the patient died. In children, the median supra-umbilical incision is to be preferred to the classical lateral incision, because the liver being drawn down, and the bladder carried to the median line, the median incision allows one to explore much better the biliary vesicle and ductus choledochus; also, it prevents the placing of sutures on a level with the liver, and so produces ulceration and fatal hemorrhage. The median incision allows also the early exploration of the left surface of the biliary tumor, to ascertain the presence or disappearance of the ductus choledochus, and, as in this case, to meet with the juxtaposition of the duodenum and bladder, and proceed to enterocholecystotomy—that is, the establishment of an artificial perforation which will allow the passage of the bile into the intestine, when the duct cannot be found.

TREATMENT OF ERECTILE TUMORS BY ELECTROLYSIS.

DR. BORIES, of Montauban, presented a case of arterial angioma of the upper lip, which had a great tendency to extend and produce very grave hemorrhages. During four months, for every day, he treated his patient by electrolysis. Each sitting lasted eight to ten minutes, but contrary to the practice of MM. Schwartz and Redard, who introduce only the positive needle, he introduced both needles, one at the side of the other; the hemorrhage accompanying each operation was insignificant. At the end of the four months coagulation was complete; to correct the deformity he used Cangoin's arrows and made an autoplasty.

RAPID MEASURING OF ASTIGMATISM.

DR. JAVAL, of Paris, said that astigmatism being one of the most frequent ocular affections which we have to remedy, it becomes important to find out means for the rapid measurement of this faulty vision. To appreciate the inequalities of the corneal curve, Helmholtz invented an ophthalmometer thirty years ago. But to utilize the instrument, it is necessary to spend a week's study on one eye, and to make complicated calculations. The ophthalmometer which he constructed in 1881 permitted one to measure a corneal astigmatism in less than a minute. To-day, by the aid of a quadripism, he thinks he can make this measurement instantaneously.

TREATMENT OF SUPPURATION CONSECUTIVE TO EYE TRAUMATISM.

DR. ABADIE, of Paris, said that the conjunctival surface is covered with microbes, and particularly its cul-de-sac.

Out of 178 cultures practised with a little mucus from the superior conjunctival cul-de-sac, 139 produced vegetations, 39 remained negative. After any traumatism, and before resorting to an operation, one must make a sub-palpebral irrigation sufficiently strong to wash away mechanically all the microbes. The liquid used does not need to be irritant, it must only be aseptic. If, notwithstanding every precaution, he finds inoculation and suppuration at one point, as strong antiseptic solutions are not tolerated, he proceeds as follows: He touches lightly the centre of the purulent spot with the galvano-cautery at white heat, and he repeats these cauterizations every twelve hours. If the suppuration occurs after a cataract operation, the little cautery points are applied along the wound without extending over the neighboring tissue. Systematically repeated every twelve hours, they arrest completely the diseased condition, and often save the cornea from certain destruction.

TREATMENT OF DISPLACEMENTS OF THE WOMB.

DR. DOLÉRIIS, of Paris, said that since 1885 he has adopted the following treatment for displacements of the womb. His method is based on the conditions of the pelvic equilibrium studied experimentally on young girls at the time of puberty, after partial operations, and after interventions for the restoration of the organs as regards the normal status of the uterus. He then studied the variable displacements of the womb and their usual complications: deviations of the neck, hypertrophic or atrophic conditions of certain parts of the womb, displacements or hernias of the bladder and rectum (rectocele, cystocele), laceration of the perineum, chronic inflammations. The plastic operations are insufficient, they only mask the lesions, without curing them. Prosthetic operations, pessaries, shortening of the round ligaments, were also insufficient; most of the time, the cure of inflammatory conditions is only a temporary one, and comes back if the displacement persists. The factors of uterine equilibrium are of three kinds: 1. The ligaments, or suspensory apparatus; 2. The central apparatus for attachment of the ligaments; 3. The pelvic floor, or sustaining apparatus. Basing his operative interferences on these indications, he has made 30 operations with success, combining the shortening of the round ligament with colporrhaphy or perineorrhaphy.

WOUND OF THE STOMACH—CURE.

DR. REYNIER, of Paris, communicated the case of a man who had a stomach wound produced by a revolver ball a quarter of an inch in diameter. The stomach was empty at the time of the accident, there being no great amount of hemorrhage, of meteorism, or symptoms of peritoneal reaction. M. Reynier did not interfere. The cure was completed without accident. He does not, however, on account of this lucky case, recommend systematic abstention in cases of wounds of this kind. The wounding of an empty stomach, without signs of important hemorrhage, does not necessitate an immediate interference, on the contrary; it becomes necessary when the lesion has been produced, on a stomach containing food, or else the contents would go out into the peritoneum.

NEW OPERATION TO REMEDY AN OLD DISLOCATION OF THE PATELLA.

DR. J. LUCAS CHAMPIONNIÈRE, of Paris, presented the following new method to the Congress. A man, aged

twenty-eight years, with an outward dislocation of the knee, which had lasted for more than three months, came to him on January 28, 1888. This man walked very badly, his thigh atrophied more and more every day. The patella dislocated outwardly could be brought to its place, but on the least flexion it returned to its abnormal position. He then thought he might create a new place for the patella. On February 16th he opened the articulation by a long incision, inside of the patella, the patellar tendon, and the rectus femoris, then with the chisel and hammer he cut a deep cavity in the bony substance of the internal condyles, extending somewhat on the cartilage. The patella placed in this position was maintained in place by the crest, by a regular wall placed to the outside. He applied catgut sutures to the rectus femoris and patellar tendon; superficial and deep sutures. A drainage tube left in the inferior portion of the articulations was taken away at the first draining on the fourth day. At the second dressing, on the tenth day, the wound was healed, and from that date he began to move the articulations. He did not know what would become of the patient. He thought, however, that this operation might be of service in analogous cases.

RIZZOLI-ESMARCH OPERATION.

DR. LEORAT, of Lyon, presented the case of a child, six and a half years old, suffering from unilateral ankylosis of the maxillary joint. The ankylosed ramus of the jaw was cut without entering the mouth; and the periosteum was completely destroyed. He then left the parts in this state, expecting a non-consolidation and the formation of a pseudo-arthritis on that side, as the other side was normal. He would probably have succeeded had the consolidation not been interfered with by scarlet fever. The patient then could separate his incisor teeth to the extent of half an inch; at the end of a year he could masticate meat.

THE FOLLOWING OFFICERS WERE ELECTED FOR THE NEXT CONGRESS.

President.—Baron Larrey, Surgeon-General, French Army (Retired).

Vice-President.—Prof. Guyon.

General Secretary.—Dr. Pozzi.

Secretaries.—Drs. Castex, Coudray, L. H. Petit, Picqué.

CORRESPONDENCE.

THE AMERICAN MEDICAL ASSOCIATION.

(By Telegraph from our Special Correspondent.)

CINCINNATI, May 10, 1888.

TAKEN all in all, the Thirty-ninth Annual Meeting of the American Medical Association has been a grand success. Both scientifically and socially it is an advance over the meetings of the last few years. The advance in the character of the scientific work is nowhere more markedly apparent than in the surgical section, where owing to the efficient efforts of its Secretary, Dr. B. A. Watson, no less perhaps than to its President, Dr. Donald McLean, a number of representative men, who in the past have to a great extent stood aloof from the Association, have this year been induced to take part in the proceedings. A glance into the hall of meeting might well lead one to suppose that the American Surgical Association was in session.

Abdominal surgery is almost the exclusive topic of discussion. Papers of rare interest were read. Dr. Senn, as usual, was a most valuable contributor. This time he excelled all his previous contributions by his demonstration of his infallible method of diagnosis of intestinal perforations by the rectal injection of hydrogen gas. Three experiments on dogs made before the Section were perfectly successful, and demonstrated the practicability of the method; while reports of similar experiments on human subjects showed its applicability to surgery.

Almost without exception general and perfect harmony has prevailed. But few contentions were present, and all past unpleasantness seems to have been buried and forgotten.

The amendment proposed by Dr. N. S. Davis taking the executive power from the Association was not acceptable, and is thought not to be in keeping with the character of American institutions.

The election of Dr. W. W. Dawson, of Cincinnati, to the presidency gives general gratification, especially to the Cincinnati profession, who earnestly desired for their popular representative this mark of distinction.

The great social event of the meeting was the reception on Thursday night. It was not only one of the most magnificent receptions ever tendered to the Association, but was the most brilliant gathering that for years has graced this city.

A MODIFIED LITHOTOMY STAFF.

To the Editor of THE MEDICAL NEWS,

SIR: In your issue of May 5th I see that Professor John H. Brinton, M.D., of the "Jefferson Medical College," claims a modification of the groove in a staff for lithotomy. I should like to remark, through your paper, that the staff with the grooved modification, which is described by Professor Brinton, was first used by the late Nathan R. Smith, M.D., late Professor of Surgery in the "University of Maryland," and is still used by Christopher Johnston, M.D., Emeritus Professor of Surgery in the same university, and also by my father, Alan P. Smith, M.D., who has used it in eighty odd cases. Feeling sure that this is merely an error of Professor Brinton's, I will close by quoting a paragraph from a work entitled *Hints on the Operation of Lithotomy*, by Nathan R. Smith, M.D., which was published in 1831, in which Professor Smith says:

"I would here remark, that the staff which I prefer to employ is grooved neither directly on its dorsum, nor yet on its side, like that of Mr. Bell, but obliquely and midway between these two aspects. This is to enable the operator, after having introduced his knife into the grooved staff, to give its edge an outward and downward inclination, so as to make the incision in that direction without danger of the knife being thrown out of the groove of the staff by the prominence of the edge which is on the side of the staff."

Very truly,

NATHAN R. SMITH, M.D.

BALTIMORE, Md., May 7, 1888.

LAPAROTOMY FOR PERITYPHLITIC ABSCESS.

To the Editor of THE MEDICAL NEWS,

SIR: May I change a statement made by Dr. Mears in your issue of May 5th relative to the time of opening a

perityphlitic abscess from perforation of the appendix, since I am quoted as fixing the time of operation at the fifth day of the disease? Permit me to say that my rule is somewhat different, viz., if a tumor is present, I prefer to ascertain by an aspirator puncture, repeated several times if necessary, whether pus be present, and then to operate irrespective of any fixed time. If a tumor be present, and no pus be detected by aspiration, and, moreover, if no marked symptoms of peritonitis be present, i. e., general pain or persistent vomiting, one may wait. Should, however, with a right iliac tumor the above symptoms be associated, in my judgment a lateral exploratory incision should be resorted to.

Dr. Morton, who in the same journal has reported a recovery from what appears, from his statement that he "washed out the abdominal cavity," to have been a case of general suppurative peritonitis, is to be congratulated on his success, for it is the first that has occurred in some sixteen instances in which this operation has been done. I leave out of this collection the case of Homans, and those more recently reported by Elliot and Sands, as these were localized intra-peritoneal abscesses, and in them the general abdominal cavity was not invaded by the disease.

Yours, very truly,

R. F. WEIR.

NEW YORK, May 7, 1888.

NEWS ITEMS.

Sir Morell Mackenzie's professional brethren have been greatly gratified by the confidence placed in him by the Emperor Frederick, and by the extraordinarily warm appreciation of the English physician's services which His Majesty has expressed both by word and deed. In conferring on Sir Morell Mackenzie the honors and decorations which he has so well earned, the Emperor added immensely to their value by a letter written with his own hand, of which the following is the full text:

"CHARLOTTENBURG, April 9, 1888.

"MY DEAR SIR MORELL: You were called in to me at the unanimous desire of my German doctors who were treating me. As I did not know you personally I had confidence in you on account of that recommendation, but I soon learned from personal experience how to value you. You have rendered me most valuable services. In recognition of those services, and as a souvenir of my accession to the throne, I have pleasure in conferring upon you the Comthur Cross and Star of my Royal Order of Hohenzollern. Your well disposed

"TO SIR MORELL MACKENZIE." "FRIEDRICH."

One does not need to "read between the lines" of this letter to perceive its significance. The first sentence fully disposes of various mythical accounts of the way in which Sir Morell Mackenzie was called in to the case which have been current in the profession and in society. Before subjecting the heir to the Imperial Crown of Germany to a formidable operation—which might, possibly, be attended with disastrous consequences, not only to the august patient, but to the whole of Europe—Professor von Bergmann naturally wished to have the sanction of an expert whose authority would be generally recognized. The choice lay between the leading English laryngologist and Professor Rauchfuss, of St. Petersburg, and the former was selected, as the Emperor says, "at the unanimous

desire of my German doctors." The concluding words in which the Emperor speaks of his accession to the throne prove beyond all doubt that His Majesty believes that it is to Sir Morell Mackenzie's "masterly inactivity" that he owes his present position, with all that it involves. We are pleased to see that the people of Germany are beginning to judge Sir Morell Mackenzie's conduct of a most difficult and anxious case in a fairer spirit than some persons there seemed at first inclined to do.—*British Medical Journal*, April 21, 1888.

The Life of Matthew Arnold, from a Medical Standpoint.—The *British Medical Journal* of April 21, 1888, writes that the life and death of Mr. Matthew Arnold have a lesson of hope and a warning for the large number of persons who suffer from heart disease. Twenty-five years ago he consulted Dr.—now Sir Andrew—Clark, and was told he had valvular disease of the heart, but advised that if he exercised reasonable care it need not at all interfere with his career. For many years he rigidly adhered to the recommendations as to regimen and exertion which were given to him, and it is interesting and encouraging to recall that all his serious work in criticism, education, and theology was done within the last twenty-five years. His reports and essays on middle-class education, the *Essays in Criticism, Literature, and Dogma*, all belong to this period. Such a life is a striking proof that heart disease, even of a type generally accounted serious—for Mr. Arnold had disease of the mitral and aortic valves—need not interfere with the labors or the enjoyments of a successful career, provided only that the limitations and moderate restrictions to which the individual must submit are frankly recognized. Emboldened by long impunity, patients are disposed to come to believe that the precautions have been unnecessary, and to relax their vigilance at the very time when the approach of old age renders all more or less liable to weakness of the heart. The Arnold family are a remarkable instance of family predisposition to disease of particular structures; the father of Dr. Arnold, of Rugby, Dr. Arnold himself, and now two of his sons, have all succumbed to chronic heart disease.

A Bequest.—The late Professor Wagner, of Leipzig, left between \$7000 and \$8000 to found a Home for the School Children of Leipzig.

To Test a Wall for Dampness.—Nessler, in the *Chemiker Zeitung*, says that a sheet of gelatine laid against a wall suspected of dampness curls away from the surface if the suspicion is well founded.

NOTES AND QUERIES.

Early Laparotomy in Appendicitis.

To the Editor of THE MEDICAL NEWS,

SIR: In my remarks upon the specimens presented by Dr. T. G. Morton, at the meeting of the Philadelphia Academy of Surgery, held April 2, 1888, from two cases of removal of the appendix vermiformis by abdominal section, an error occurred in the statement that Dr. Weir fixes the time for operation by the lateral incision at five days. It should have read two days, and quoting Dr. Weir *verbatim*, it should read "within forty-eight hours from the inception of the disease." Please insert this correction, and oblige,

Yours respectfully,

J. EWING MEARS.

PHILADELPHIA, May 5, 1888.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING MAY 5, 1888.

HORD, W. T., *Medical Director*, and WOOLVERTON, T., *Surgeon*.—Ordered as delegates to represent the Medical Department of the Navy at the meeting of the American Medical Association, May 8th, at Cincinnati, Ohio.

BRADLEY, GEORGE P., *Surgeon*.—Ordered to Navy Yard, Brooklyn, N. Y., without delay.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM MAY 1 TO MAY 7, 1888.

DE LOFFOE, A. A., *Captain and Assistant Surgeon*.—Granted leave of absence for six months, on surgeon's certificate of disability, with permission to go beyond sea.—S. O. 99., A. G. O., April 30, 1888.

LAUDERDALE, JOHN V., *Captain and Assistant Surgeon*.—Ordered from Fort Clark, Texas, to Fort Davis, Texas.—S. O. 98, A. G. O., April 28, 1888.

EDIE, GUY L., *First Lieutenant and Assistant Surgeon*.—Now under orders to report for duty to the commanding officer, Fort Douglas, Utah Territory, will accompany the Eighth Cavalry from the Department of Texas to the Department of Dakota, and, upon completion of this duty, will proceed to Fort Douglas.—S. O. 99, A. G. O., April 30, 1888.

MCCAW, WILLIAM D., *First Lieutenant and Assistant Surgeon*.—Relieved from duty at Fort Leavenworth, Kansas, and ordered for duty at Fort Crawford, Colorado.—S. O. 48, Department of Missouri, May 1, 1888.

RAFFERTY, OGDEN, *First Lieutenant and Assistant Surgeon* (recently appointed).—Ordered for duty at Fort Clark, Texas.—S. O. 98, A. G. O., April 28, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FOR THE TWO WEEKS ENDING MAY 5, 1888.

BAILHACHE, P. H., *Surgeon*.—Ordered to proceed to New York, N. Y., for temporary duty, May 1, 1888.

HUTTON, W. H. H., *Surgeon*.—Detailed as President of the Board to report as to the Quarantine establishment at North Chanteleur Island, Gulf of Mexico, May 4, 1888.

WYMAN, WALTER, *Surgeon*.—Granted leave of absence for fourteen days, May 4, 1888.

STONER, G. W., *Surgeon*.—Detailed as Chairman of the Board for the Physical Examination of Candidates for Appointment and Promotion, Revenue Marine Service, May 5, 1888.

MEAD, F. W., *Passed Assistant Surgeon*.—Detailed as Recorder of the Board for the Physical Examination of Candidates for Appointment and Promotion, Revenue Marine Service, May 4, 1888.

CARTER, H. R., *Passed Assistant Surgeon*.—Detailed as Recorder of the Board to report as to the Quarantine establishment at North Chanteleur Island, Gulf of Mexico, May 4, 1888.

DEVAN, S. C., *Passed Assistant Surgeon*.—Relieved from duty at Sapelo Quarantine; ordered to assume charge of the Service at Savannah, Ga., May 3, 1888.

WHITE, J. H., *Passed Assistant Surgeon*.—Relieved from duty at Savannah, Ga.; ordered to assume charge of Sapelo Quarantine Station, May 3, 1888.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.